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# Vol. II

## TRANSCRIPT OF RECORD

## Supreme Court of the United States

OCTOBER TERM, 1930.

## No. 513

STATE OF ALABAMA AND ALABAMA PUBLIC SERVICE COMMISSION, APPELLANTS,

*vs.*

UNITED STATES OF AMERICA, INTERSTATE COMMERCE COMMISSION, ATLANTIC COAST LINE RAILROAD COMPANY, ET AL.

APPEAL FROM THE DISTRICT COURT OF THE UNITED STATES FOR THE NORTHERN DISTRICT OF ALABAMA

FILED OCTOBER 15, 1930

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## VOL. II

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2.45 per cent of the total revenue of the Central of Georgia Railway is derived from fertilizer. I might say this, that our average revenue on fertilizer, now, this is not in Georgia, this is the system, is $1.71 per ton, the average haul is 100.67 miles; and the average revenue on all traffic is $2.18 per ton, and the average haul is 183.48. That is for the year 1924. (Tes. 552-55.)

Cross-examination:

Speaking of the financial conditions of the roads in the early nineties and the latter eighties, notwithstanding the statement I have made as to receiverships, our Georgia business has always been fairly comparable with other Southern States or states in this territory generally. Georgia has always been one of the Central's best states from a revenue producing point of view. I am talking about the Georgia business, both inter and intrastate. I did not mean to say that the Georgia Commission had worked hardships; I was quoting there what they said in their report. I did not mean to create the impression by my testimony that the regulations so far as Georgia is concerned were responsible for the various receiverships in the nineties. This evidence was offered to just give the chronological history of the rates on fertilizer in Georgia from 1880 up to the present time. So far as the revenue of the railroads in [fol. 496] Georgia is concerned, we would like to have more revenue; we are not earning more than our amount fixed. We are not exceeding the allowance.

I know that in 1893 there was a great depression all over the country and a panic. The Georgia Commission of course had very little to do with that; that was a national panic.

At this time in publishing rates ordered by state authorities we give reference to the orders prescribing the rates; we are required to do it in Alabama, but some years ago that was not the custom. It was not the custom in Georgia very thoroughly; some years ago the Georgia Commission ordered us to give reference to their orders when publishing rates. Carriers don't keep such records for their own benefit; when we receive an order of that kind we usually

complete the file by making a memorandum that the order has been complied with. I have no evidence about under what authority those rates I testified to in Georgia were established; the history I gave was taken from the reports of the Georgia Commission. The present Georgia rates, reflecting the G. O. 28 and Ex Parte 74 advances and the reductions of 1922, have been in effect since January 1, 1897. (Tes. 555-558.)

The rates that I gave as in effect from 1880 to 1897 applied to the Central of Georgia. I think it is true that at some time in there certain lines were allowed a percentage above the table, because the Commission referred in 1897 to the fact that all percentages above the standard tariff were removed, and the inference is that there were certain lines that were given, such as the short lines, the percentage increase.

I do not know how long the rates shown on Exhibit 196 from Savannah to various destinations in South Carolina have been in effect. Our proposed rates reduce those Savannah-South Carolina rates. That is not an assumption that those South Carolina rates are too high; the scale as proposed by the carriers would be a leveling process. I don't think the present rates from Savannah to South Carolina are unreasonable at all. I know that the Savannah people do ship extensively into Carolina, but I don't know of a movement to any particular point, but all these stations are in an agricultural section. On Exhibit 197, show-
[fol. 497] ing there Savannah to Seaboard Air Line stations, including practically all of the agency stations from Vidalia to Omaha: There was no reason for omitting Cordele and Americus. Dawson is on a branch of the Seaboard —I don't know if it is; I did not prepare these exhibits myself, I had those prepared though. I know of no movement from Montgomery to those particular stations, because they are on the Seaboard, but I know there is a movement from Montgomery to points in Georgia on the Central, and these stations are in the same common territory. They move from Montgomery right into the territory of the fertilizer plants at Albany, Dawson and Americus. (Tes. 558-560.)

"Q. Now, your Exhibit No. 199, there you are comparing rates from Macon to various Central of Georgia Stations on your Chattanooga division, with rates from Macon to Ala-

bama stations between Columbia and Andalusia; is there any movement from Macon to those Alabama stations?

"A. I couldn't answer that there is a movement from any of these points to any of these stations, but there is no reason why there shouldn't be because they are all in the Agricultural section, and Macon is a large manufacturing point."

There is fertilizer manufactured at Columbus; I don't think there is a complete fertilizer plant at Union Springs. We have a plant at Eufaula. Eufaula into Georgia is the Georgia rate; Eufaula and Columbia, Ala., have ever since I have been in the railroad business taken the Georgia intrastate rates. We carry a lower level of rates from Eufaula into Georgia than we do from Montgomery into Georgia.

On Exhibit 204, I make comparisons with various midway points and I have a comparison there between Macon and Leesburg and Dothan and Leesburg. I do not know of any movement from either Macon or Dothan to Leesburg, but I will be very glad to furnish a statement showing whether or not there has been a movement from those points to those destinations; I am quite satisfied that they will show a movement to a great many of them.

[fol. 498] I haven't the segregation of our fertilizer movement between inter and intrastate; we have that, I am quite sure; I think the accounting department gets out a statement of that kind, but I haven't it with me.

I have no information that would reflect the amount of movement over a joint line or single line haul in Georgia; the rates made by the single line scale I know are by far the rates that move the bulk of the traffic. I don't know how much. It is true that our revenue in Georgia would be less on a joint line haul under the proposed scale than we now get on the joint line haul: It would reduce the joint, where the rates are made on joint haul on combination, the proposed scale would reduce those rates. It is fair to say that I am satisfied that the bulk of the traffic that the Central would handle in Georgia would be on the single line scale and not on the joint line scale. It would be just a wild guess, any figure I might say, but I feel confident that is the more important traffic. (Tes. 560-564.)

The movement of imported fertilizer materials to the interior mixing plants is rather substantial and that tonnage is valuable to the carriers.

"Q. I believe it is proposed to apply that material on the domstic scale with a port equalization scheme?

"A. The idea as I understand it is to follow largely the present scheme of making those rates, the present rates were made by taking the domestic rate from the key port and then making the relationship to other ports."

That is also under the proposal. There may be instances where the rates from the ports now are lower than the domestic rates to those mixing plants, but I think largely the imported fertilizer materials rates, speaking of Savannah, now, are the domestic rates, and in numerous instances the domestic rate from Savannah, because that is the controlling port, in other cases it might be Brunswick or Jacksonville. Kainit and acid phosphate are materially lower than our domestic rates on fertilizer; in Georgia kainit and acid phosphate take 90% of the fertilizer rates, and I think that has been extended to the other ports somewhat; I think probably Jacksonville and Charleston. I don't think the increases proposed are so substantial that it would affect [fol. 499] the movement at all; of course if fertilizer is sold on the port basis, the more the port cost is the more has to be absorbed. I don't think that the movement, transit movement of mixed feeds, fabricating steel, etc., and the moving of fertilizer to the interior and reshipping it, are comparable. We have not, that I know of, been approached by the interior mixers for transit arrangements at such points. (Tes. 564-566.)

Witness Menzies' Exhibit No. 3 shows the rates from Savannah to situations on the Seaboard and A. C. L. in South Carolina, and shows that the present rates are higher than the proposed rates. I have no information insofar as the rates from Augusta are concerned. I have no exhibit on our C. of Ga. Ry. rates from Montgomery to Georgia stations; I suppose the reason that they took the Seaboard is because it is the direct short line from Savannah to Montgomery. Our line into Georgia from Montgomery is a little circuitous; we have to come around via Macon—No, we don't have to come through Macon to get into Geor-

gia, we get into Georgia at Eufaula; you are speaking of the rates from Montgomery to Georgia stations on the Central of Georgia Ry. We do not publish the Georgia scale from Montgomery to Georgia stations. There is a fertilizer plant at Opelika; we carry rates from Opelika to Georgia stations;—They are on a higher basis than the Georgia basis. (Tes. 566-568.)

I stated in the beginning that the Georgia Commission started the general investigation under a rule issued in 1921, and hearings began in September. Since then the Georgia Commission has made a revision on a good many commodities—sugar, and canned goods, and brick and clay products, and readjusted the class rates. I don't know that all of those readjusted orders that have been issued so far have been for the benefit of the carriers; I think that in some instances they have, and I think probably in others it would result in a reduction in revenue. I do not recall any of those orders that would cause a reduction in revenue. On the canned goods it reduced certain rates and increased others; it increased the rates largely to the so-called basing or common point, put them on a mileage scale. I guess the larger movement is to the basing points. The Commission has revived the rates on sugar; that represented considerable increases. I think that would show some increase in the carriers' revenue. Just recently the Commission has issued orders on logs which represent considerable increases. I don't know about the sand and gravel scale; I haven't analyzed that myself to know what would be the actual result. (Tes. 568-569.)

[fol. 500]

Redirect examination:

I do not want to be understood as saying that the carriers attributed their condition in 1897 solely to the rates that had been fixed by the Georgia Commission prior to that time. I did not mean to make the inference that the rates so prescribed was the reason for many of the carriers being in the hands of receivers, but merely that the Commission's own statement indicated that it probably attributed to that condition in the language that they used in their report of October 15th, 1897, where they state: "As some lines are now failing to pay their operating expenses and fixed

charges under the rates at present allowed." Now, I did not mean that statement to carry the idea that the rates under which the carriers operated were the only cause for that condition.

"Q. But you did not, on the other hand, intend to be understood as saying that the revenue which the carriers were deriving from their intrastate traffic in Georgia was not a contributing circumstance to that condition, did you?

"A. I think that is a fair conclusion to draw from the Commission's statement."

As I construe their report, I have given reference to the language used by the Georgia Commission in its report as indicating that it itself recognized that situation.

Prior to 1897, the carriers practically made their own interstate rates. Not knowing what the movement was at the time, I couldn't say whether the volume of intrastate traffic was really small as compared with the interstate. I think it true that it was less than the interstate. (Tes. 570-571.)

(Witness excused.)

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[fol. 501] J. H. KETNER was thereupon called as a witness and, having been duly sworn, testified as follows:

Direct examination:

I am connected with the Seaboard Air Line Railway Company, as General Freight Agent, headquarters Norfolk, Va. I have had quite a number of years experience in connection with traffic matters in the South; with southern lines' traffic departments nearly twenty-five years. I wish to make a very few comments about certain features of the case, and especially dealing with the interstate and intrastate rates in the state of Florida. Just to connect up the record, Mr. McConnell was asked by Mr. Perry I think of the Georgia Commission, as to the influence the Georgia intrastate scale of fertilizer rates had on the Alabama intrastate scale. During the period of change in Alabama, I happened to be commercial agent of the Seaboard at Montgomery, Ala., and was over the state pretty generally in

my duties, and I know positively that the State Commission and the Governor of the state were being urged to adopt the Georgia Rates, the claim being made that the Alabama Commission was not taking care of its shippers as well as the Georgia Commission was; and therefore the scale in Georgia did have its direct influence on the scale adopted in Alabama.

The Witness McConnell was also asked as to the movement of fertilizer from Savannah, Ga., to South Carolina destinations in connection with one of his exhibits. By the Seaboard Air Line Railway, the movement for the season of 1924, January to May inclusive to all stations was 74,000 plus tons; 31 per cent of this, or something more than 23,000 tons went to destinations in South Carolina. From Montgomery, Ala., via the Seaboard to all stations, we had a movement of in round figures 3,000 tons, and 11 per cent of this went to stations in Georgia. From Columbus, Ga., to all stations, the movement was something over 6,000 tons, and 30 per cent of this movement went to destinations in Alabama. So that there is relatively a substantial movement to the adjoining states. (Tes. 571-573.)

[fol. 502] As stated, I was designated to testify as to the adjustment in Florida, both the intrastate and the interstate adjustments to and from Florida. I have heard the testimony of previous witnesses dealing with the general questions and the justification of the reasonableness of the so-called Royster Scale, now being proposed by the carriers for general application in the Southern Region, and I will attempt to avoid duplicating of same. However, supplementing the testimony that has already been given as to the history of the Royster Scale, I would like to state that I took active part in the several hearings in that case that is in the Royster case, finally resulting in the Commission's report and order in 50 I. C. C. 34. I was a witness for the carriers in those cases, with the exception of the first case, but I was present and worked up the testimony of the Seaboard in all three of the hearings, and I testified in the last two hearings. It is my sincere belief that, except for coercion exercised in connection with the last hearing, we would today have the Royster Scale substantially higher than the present scale, both for interstate application from

Norfolk to North Carolina points and from Charleston to North Carolina points, and from Wilmington to North Carolina points, on basis of the first scale found reasonable by the Commission in 31 I. C. C. 458, and reaffirmed in 38 I. C. C. 190; I am sorry that Mr. Dashiell is not here, as he was the witness for the complainant in that case, and I think he could verify what I have to say. In the third hearing the complainant and the carriers were prepared to make out a convincing Shreveport Case, justifying the Commission in ordering a revision in the intrastate rates applying from Wilmington to North Carolina points, the complainants having expressed themselves as being entirely satisfied with the level of the rates found reasonable by the Commission in its original report, which was at that time I believe the same as the North Carolina intrastate scale, and it was the purpose of the complainants to so express themselves in the hearing in that case. I understand that the Commission's first decision in that case, I think possibly Mr. Gardner has touched upon it, the North Carolina scale was reduced, and it was apparent that it was in the nature of a retaliatory measure, but I think that has been denied, but it was an odd coincidence that it fol-
[fol. 503] lowed so closely upon the Interstate Commerce Commission having fixed those rates, the rates from Norfolk into North Carolina, that there was appointed that North Carolina Commission, what was known as the Justice Commission, which was a commission appointed by the Governor, and that that commission then reduced the North Carolina intrastate scale. You spell that J u s t i c e, I think it is a misnomer. In the hearing, this is the third hearing of the Royster Case, the state of North Carolina was represented by Ex. Governor Cameron Morrison, then Attorney-General of the State, that is Ex. Governor now, who was at that time Attorney-General of the State, and two members of the North Carolina Corporation Commission were also present. I have not read the record in that case, the transcript, but I have recently read the report, and what I have to say is largely borne out by the Commission's report. During the progress of the hearing, the North Carolina representatives learned of the attitude of the complainants, namely, that the complainants would not

further attack the reasonableness of the rates under Section 1, but would rely entirely upon Section 3, joining the carriers in that respect. Mr. Morrison openly stated to complainants counsel and witness that if they did not change their position and urge the Interstate Commerce Commission to adopt the reduced North Carolina Scale, the North Carolina Farm interests would boycott the Norfolk Fertilizer producers. As a result complainant attempted to withdraw his complaint, as indicated at Page 40 of the Commission's report 50 I. C. C., and on cross-examination, that is, the carriers' cross-examination, of complainant's witness, in an effort to obtain an admission from complainant's witness that the original scale of rates established by the Commission was in his opinion reasonably low per se, the only answer he would make was that either the removal of the discrimination by advancing the North Carolina intrastate rates or the reduction of the rates from Norfolk would satisfy his complaint. (Tes. 573-576.)

I know personally the facts about a threatened boycott; I heard the conversation myself, there was apparently no secret about it, as it was discussed it the hearing room, I don't think that part of it was in the transcript of testimony, but I know it of my knowledge.

[fol. 504] For the purpose of showing the importance of the fertilizer movement to the Southern carriers, Witness Gardner filed Exhibit No. 40, in which he included the S. A. L. Railway, and showed for the year 1923 that our fertilizer tonnage was 680,140 net tons and that the fertilizer tonnage was 4.54 per cent of the total tonnage. In this exhibit I think Mr. Gardner has made his exhibit overly conservative in that he failed to include the tonnage under the Classification of Chemicals and Explosives of 309,840 tons, or 2 per cent of total tonnage, being a total ratio of 6.54 per cent of the total tonnage on the Seaboard. Under the Interstate Commerce Commission's Order of December 1st, 1919, prescribing classification of commodities carried and to be reported to the Commission, Commodity Group 66 covering chemicals and explosives—includes such important fertilizer and fertilizer materials as acid phosphate, nitre cake, potash, nitrate of soda, etc., and on the Seaboard Air Line Railway the majority of the movement under this

Classification consists of acid phoshate and nitrate of soda, and should, in my opinion, be included in this statement. I think this will likewise apply to the majority, if not all the other lines, shown in this exhibit. There has been some suggestion that the Commission has changed that classification, but I don't think it has so changed it as to eliminate acid phosphate and nitrate of soda; in fact our auditing department recently advised us that those two articles were still in that classification, and represented the larger part of the movement under that classification. If those articles are included, the ratio to the total tonnage, so far as the Seaboard Air Line Railway is concerned, would be 6.54 per cent, instead of 4.54 per cent. (Tes. 576-578.)

On the question of the average consumption of fertilizer per acre, much has been said about the average consumption of fertilizer per acre in Southern Territory and I have attempted through several sources to ascertain fair and representative figures on this question, endeavoring if possible, to show the actual average application of fertilizer to the cultivated acre, eliminating that portion of improved farm lands not under cultivation. In an article by Mr. William D. Hurd, indicated as Director of the National Fertilizer Association, on "Report of the Work of the Soil Im-
[fol. 505] provement Committee" of that Association, appearing in the American Fertilizer Handbook for 1924, and in a graphic included in this article it shows the average pounds used per crop acre, arrived at by taking the total consumption of fertilizer sold in each state, divided by the total acres of harvested crops in 1922. It seems to me this brings it down to a fairer average consumption per acre than any figures I have seen.

Taking Witness Menzies' Exhibit No. 10, and supplementing same with these figures for 1922, it shows an average consumption per acre in North Carolina 265 pounds; Virginia 185 pounds; South Carolina 189 pounds; Georgia 102 pounds; Florida 534 pounds; Alabama 69 pounds; Mississippi 37 pounds; Louisiana 40 pounds; Tennessee 26 pounds; Kentucky 27 pounds.

We are advised by the State Agricultural Department that in the year 1924 with 2,500,000 acres under cultivation, there were 365,317 tons of fertilizer consumed, resulting in an average of 292 pounds per acre. Of course, this does

not mean that some of the crop acres got this portion of fertilizer, some crop acres possibly did not get any fertilizer, as one witness was on the stand and testified that he did not use any nitrate of soda on his farm; but this is the nearest actual average that I could find.

As to whether I think that getting at the average pounds used per acre on farm lands in a state is really a fair way to determine what it is going to cost the farmer for the use of fertilizer in Florida: Well, as I say, I tried the best I could to find out some fairly representative actual average application of fertilizer to the crop or the acre, and that this application on the harvested crop basis is the nearest we can get down to it on the general average. I know, of course, under some vegetables they use an excessive amount of fertilizer, and force the vegetables.

"Q. Mr. Ketner, haven't you sufficient acquaintance with Florida to know that there are thousands of acres of land in Florida that there is no fertilizer used on at all, and in that portion of the state where they pretend to use fertilizer, they use from a ton to five tons to the acre?

"A. No, that is in connection with the vegetable produc-[fol. 506] tion, the tomato production on the sea coast and the vegetable production in the Manatee section, I of course know that they use an excessive amount of fertilizer to force the vegetables." (Tes. 578-580.)

I don't think there is any question about the vegetable and citrus production using more than all the balance of the crops put together, and I know personally of some growers down there that do not use from a ton to 5 tons to the acre.

"Q. So that really we don't get at the true result, we strike an average of all the results, but we don't get the true result?

"A. Unfortunately, as I say, I tried to get some fairer average. There is no question about that."

I want to make some statement in regard to the list of articles and the carload minima as proposed under the Royster Scale. So far as the Seaboard Air Line is concerned, I would like to clear up one point on which there seems to be some doubt, and that is as to the list of commodities and

carload minimum weight to be applied on same in connection with the application of the proposed Royster Scale. Where the Royster Scale is now applicable it covers list of commodities as embodied in Note 94, Exceptions 4, to Southern Classification; and this list amended eliminating phosphate rock and manure was filed as Witness Menzies' Exhibit No. 8. Under this list, the carload minimum weight will not uniformly be 30,000 pounds, but will be the minimum as specified in the descriptive list. It should also be understood that this list of articles is not to be taken as being crystalized for all time to come and that changed conditions may not make it necessary to add to or take from this list. This may be true of cottonseed meal, which is now included in the list as taking fertilizer rates. It is not unreasonable to assume that science in the future may find other uses for some of the articles now included in this list that will make it highly improper to continue the application of fertilizer rates on same.

The term "fertilizer" in Florida embraces an extensive list of articles rated Class "M," applying in cents per ton [fol. 507] of 2,000 pounds, and applicable to carloads and less than carload with some few exceptions, where a carload minimum weight is specified. I will here refer to Carriers' Exhibit No. 209, which is a statement showing the present Florida Classification rules and ratings on articles described as fertilizer and fertilizer materials. A number of the articles embraced in the term fertilizers are also included in the list of fertilizer materials. Under the Florida Classification, fertilizer materials, as listed, are rated 75 per cent of Class "M" in connection with carload minimum weight of 30,000 pounds. The Class "M" rating on fertilizer substantially as in effect today, dates back a great many years. According to our records this rating was shown in Florida Classification effective as of December 2nd, 1899; however, I am not prepared to say that it was not also in effect sometime prior to that date.

Now, as to the history of the fertilizer material rating of 75 per cent of Class M, the Classification rating of 75 per cent of Class M on fertilizer materials in Florida is of a much more recent date. The Florida Railroad Commission by due notice to the Florida carriers, under date of July 27th, 1910, called a hearing at its office in Tallahassee, Fla., August 11th, 1910, "to hear and consider whether or not

we, that is, the Commission, ought to make changes in our Florida Classification No. 3, as follows:

By making fertilizer material; viz,

Brimstone, carbonate of potash, manure salts, german soda, grape pomace, kainit, muriate of potash, nitrate of soda, nitre cake, sulphate of potash sylvinit and sulphate of ammonia, one-half of M. Class M being the then existing rating accorded fertilizer under the Florida Classification. This hearing was attended by the officials of the principal lines in Florida and by representatives of the Ocala Fertilizer Company, Ocala, Fla., and the Southern Fertilizer Company of Orlando, Fla. The carriers' representatives offered strenuous objections to the drastic reduction as proposed in the citation for hearing, and in an effort to reach some compromise, suggested a basis of 75 per cent of Class M in connection with carload minimum of 50,000 pounds, to apply on a list of fertilizer materials then moving intrastate in North Carolina on basis of 90 per cent [fol. 508] of the fertilizer rates, subject to a carload minimum weight of 50,000 pounds. This list being acid phosphate, in bulk; sulphate of ammonia; dried blood; bones, castor pomace, in bags; fish scrap; hardsaltz, in bulk; hoof meal, in bags or in bulk; kainit, in bulk; bat, bird or sheep manure, in bags or in bulk; muriate of potash; sulphate of potash, rotten slate, nitrate of soda; sylvinit and tankage. However, it should be stated this suggested compromise was not concurred in by one or more of the important Florida lines.

Following this hearing, and under date of August 19th, 1910, the Florida Commission issued its order No. 306, to become effective on September 6th, 1910. Copy of same is filed as my Exhibit No. 210. (Tes. 580-584.)

(Certain statements were thereupon received in evidence, and marked "Carriers' Exhibits Nos. 209 to 219 inclusive Witness Ketner.")

The third section of this exhibit has reference to fertilizer materials, there being several other matters included in this same hearing covered by the same order. It will be noted this order included a great number of articles in addition to the ones referred to in the Commission's citation of hearing and that same prescribed rating of 75 per cent of M in connection with carload minimum weight of

30,000 pounds. This Order was very objectionable to all of the Florida lines; however, it was made effective by some of the lines, same being published under protest.

One of the important Florida lines carried its protest to the extent of declining to make this order effective and in letter addressed to the Chairman of the Railroad Commission of Florida, under date of September 3rd, 1910, set out fully its reasons for so declining and with respect particularly to the reduced rating on fertilizer materials, among other things, called the Commission's attention to the fact that its Order No. 306 undertook to make a 25 per cent lower rate on fertilizer ingredients, worth at that time $50.00 and $60.00 per net ton, that it makes on mixed fertilizers worth $25.00 per ton, and by its Order, the Commission undertook to say that where $2.00 is a just and reasonable rate on 30,000 pounds of mixed fertilizers worth $25.00 a ton [fol. 509] a just and reasonable rate on the same weight of nitrate of soda worth $50.00 a ton is only $1.50 per ton. The rate on materials is not an any-quantity rate; that is a carload rate, 30,000 pounds. The rate on fertilizer was an any-quantity rate, with some few exceptions, as my first exhibit shows, where they specified a carload minimum. I do not think there is any justification for a difference between the two, because as a matter of fact, even under the any-quantity basis, the complete fertilizers move in carload quantities. Assuming that the same rate would be reasonable on fertilizer materials as on a complete fertilizer, then if we are going to have an any-quantity rating on one and a carload rating on the other, I think the any-quantity rate would be higher than the carload rate. Of course, the any-quantity rate is the carload or less than carload rate, it includes both carloads and less than carloads, but I can't see any justification in making a substantially lower basis of rates on fertilizer materials than on fertilizer.

"By Mr. Burr:

"Q. Mr. Ketner, it appears not fair to create the impression here that the price of mixed fertilizer at the date you have mentioned here was $25.00 a ton in Florida.

"A. That was the figure we had at that time, Mr. Burr, as I stated."

I understood it to be the price of fertilizer in Florida; it was my understanding that that was the price of the complete goods in Florida at that time, that it simply taken from our records, I have no first hand information on that. I am referring now to the protest that was filed with the Florida Railroad Commission at that time as to the matters and things that were stated in that protest; we had objected to putting in the order, and we were simply giving our reasons for not making the order effective, we felt that the Florida Railroad Commission was entitled to our reasons. Attention is also called to the fact that the whole purpose of the Commission's Order, as was clearly indicated at the hearing of August 11th, was to build up and foster interior fertilizer factories at the expense of the carriers and to the detriment and disadvantage of the port fertilizer manufac- [fol. 510] turers, and through its rate making power, was preferring one section of the state to the prejudice and disadvantage of interests in another section of the state, and its effect was to destroy natural advantages enjoyed by the manufacturers at the ports through an arbitrary adjustment in rates. It also had the effect of giving preferential treatment to certain fertilizer materials which were applied directly to the soil as in commercial fertilizer. Among such articles are nitrate of soda, cottonseed meal, acid phosphate, wood ashes, cottonseed hull ashes, kainit, land plaster, etc. (Tes. 584-587.)

This carrier offered the further reason that the Commission's Order 306 included a great many articles that were not included in the notice of hearing, which was contrary to the law governing the Railroad Commission.

I don't know it as a fact that in that hearing, although the carriers were opposing making rates on these materials, that it was agreed on one point, that such materials as the State Chemist of Florida set down as fertilizer materials would be named in whatever order was written. As I mentioned, the compromise suggested at that hearing was to adopt a basis of 75 per cent of Class M on the list of articles that took 90 per cent of the fertilizer rate in the state of North Carolina. I know that to be a fact, but I don't know it to be a fact, the statement you have just made; I am relying upon the statement of our first Vice-president, and he

was at the hearing, he attended the hearing. It may possibly be hearsay. Information given us by our first Vice-president, we consider almost first-hand information.

In addition to what has been said, this carrier objected to the measure or the proposed basis of rates as it would result in lower rates than carried on similar commodities in any other state reached by this carrier and that no other state through which it operated, with the single exception of North Carolina, had attempted to make lower rates on fertilizer materials than applied to fertilizer, and that in that state, the list of commodities taking rate less than fertilizer was very limited.

This carrier continued to refuse to observe the Railroad Commission's Order 306, and after a lapse of something [fol. 511] over two years, the Florida Commission issued notice on September 7th, 1912, calling hearing at Tallahassee, Fla., September 18th, 1912, for the purpose of considering and investigating whether an order should not be entered requiring this carrier to adopt Order No. 306. The notice of this hearing contained an exact list of the commodities included in Order 306, thus meeting one of the objections raised by this carrier against the previous order. At this hearing, which was finally held on October 2nd, 1912, the defendant carrier again made strenuous objections to the proposed action of the Commission; however, under date of October 8th, 1912, the Florida Commission issued its Order No. 374, effective November 15th, 1912, which is filed as Carriers' Exhibit No. 211.

Following receipt of Order No. 374, the defendant carrier filed an application for an injunction against the enforcement of the Commission's Order, this application being filed in the Circuit Court of the Second Judicial Circuit in Leon County, Fla.; however, before this injunction proceeding was disposed of the defendant carrier, to relieve itself of the possibility of suffering heavily penalties on account of its previous refusal to comply with the Commission's Order, published the reduced rating, effective August 6th, 1913. (Tes. 587-590.)

We did not get a permanent injunction against the Order; we simply minded to save ourselves from being spanked. I don't know that the Court would spank us, but we had other matters up in Florida. We were in court on a good

many very important matters. They were all withdrawn from the courts; it was Judge Watts, I think you will remember that Judge Watts was responsible for that compromise; there were other matters that were pressing us. It was good business judgment to accept. The same criticism, made in 1912 of the 75 per cent of Class M rating on fertilizer material, applies with equal force today, and in our opinion is indefensible.

The only states, as far as I am advised, making a lower rating on fertilizer material than on fertilizer, other than the State of Florida, as previously referred to by Mr. Menzies, is the State of Georgia, where only two articles, namely, Kainit and Acid Phosphate in bulk, carload minimum [fol. 512] 40,000 pounds, is rated 10 per cent less than fertilizer and in the state of North Carolina a restricted list of fertilizer materials are given rating of 90 per cent of the fertilizer rate when such materials are loaded to 50,000 pounds or more to the car. In North Carolina the larger percentage of fertilizer materials move from the port of Wilmington, reaching that port by water, and on the inland movement to North Carolina destinations we have for some time past considered this movement interstate in character and therefore have not applied the North Carolina intrastate rating but have applied the interstate rate, which is the same as on fertilizer, however.

I don't think we are applying the intrastate rates on imported materials today to Florida points; I don't know that we have taken definite action on that, we are applying it on petroleum products, and it should likewise be applied on imported fertilizer materials. If our officials in Florida are construing their movement of fertilizer materials from the ports as interstate traffic, and applying the interstate rates, they are carrying out my idea on it.

That is in line with my idea, and we are trying to sustain that idea in the Federal Courts now. Continuing my statement as to the situation in North Carolina, under an order of the North Carolina Corporation Commission issued in April, 1924, directing the carriers to apply the intrastate rates on such movements where there was a change of ownership at the port, the carriers, to avoid penalties, have applied the intrastate rating for cars loaded to 50,000 pounds or more, but have carried the matter to the Federal

Court, Eastern District of North Carolina, on an application for interlocutory injunction against the North Carolina Corporation Commission's Order, and that matter is now pending. We had to observe the North Carolina Commission's order, or rather the North Carolina Commission's idea as to the difference between interstate and intrastate traffic, because their idea was backed up by an order and carried with it serious penalties, whereas the Interstate Commerce Commission, taking the opposite view to that of North Carolina Corporation Commission, had not put its ideas in the shape of an order, and therefore we had only one alternative, and that was to obey the order of the [fol. 513] North Carolina Corporation Commission, and we are exhausting all our reasonable remedies to get the matter straightened out and some final conclusion reached. (Tes. 590-593.)

There are only one or two interior fertilizer plants on the Seaboard Air Line Railway in the State of Florida, namely, Gainesville and Orlando. Those interior plants of course reach the plants at Jacksonville and Tampa, and there are possibly other minor mixing plants. There is a little mixing done at Tallahassee; there is more or less mixing now on every farm practically. I am not enough of a fertilizer expert to say whether those home fixing formulas are valuable or not. I am speaking of the Seaboard, I specified the Seaboard. Both of the plants I have referred to are of comparatively small capacity, however, for the first five months of 1924—January to May, 1924, inclusive—the Seaboard moved out of Jacksonville 409 cars, or 9,274 net tons of fertilizer material, and 384 tons from Tampa, which apparently sustains the carriers' criticism of September, 1912 that, with the preferential rating on fertilizer material, there would likely occur a movement of certain of these materials for direct application to the soil, to the prejudice of complete fertilizers paying the full fertilizer rate from the port factories to interior consumers, as it is hardly probable that those two minor interior plants use the amount of fertilizer material that I have specified.

As previously stated by Witness Menzies, fertilizer in Florida is now rated Class M, any-quantity, with some few exceptions, Regardless of the fact that fertilizer takes the same rate carload or less than carload, the analysis of the movement over the Seaboard in Florida, so far as we have

been able to make same, indicates that the majority of the movement is in carload quantities, that is in lots of 15 tons or more, from one shipper to one consignee on one bill of lading; for example, the movement via the Seaboard from Jacksonville, Fla., for the first five months of 1924; we moved 1,309 cars, or 24,133 tons, loaded 15 tons or more to the car, whereas, during the same period we only handled L. C. L. shipments amounting to 5,764 net tons. The L. C. L. movement represents 19.2 per cent of the total movement during the 5 months period. The less than car load ship-
[fol. 514] ments were handled in the usual way, through our forwarding depots, received from drays or trap cars, and delivered through our depots at destination, placing on the carriers all of the additional expenses of loading and unloading incident to less than carload traffic which is considerably more expensive than carload traffic where same is loaded and unloaded by the shipper or receiver, whereas the compensation to the carrier was on no higher basis than on the carload movement. The any-quantity rating on fertilizer is an inheritance of the old days when fertilizer was consumed in compafatively small quantities, but is unfair to the carriers under present conditions.

As previously stated by Witness Menzies, we are proposing the application of the so-called Third Royster Scale for intrastate application in the State of Florida on both fertilizer and fertilizer material. (Tes. 593-595.)

In view of the geographical location of Florida in that it is a peninsula state and that the lines operating in the state are, as expressed by the Interstate Commerce Commission, gathering or terminal lines, having no opportunity to participate in transtate traffic but wholly dependent upon traffic originating in and/or terminating in that state, a higher level of rates on fertilizer might properly be proposed for application in the state of Florida than in the other Southern States.

"By Mr. Burr:

"Q. It seems that this peninsula state is rather attractive to the railroad owners, to build more lines in it at present, Mr. Ketner?

"A. It is an excellent state, Mr. Burr, and we consider it a coming state.

"Q. Therefore, the conditions which you refer to are not considered at all serious when it comes to making an investment in railroad property in Florida."

Florida is an excellent feeder for the rest of the lines, there is no question about that, I haven't denied that, and I am not offering that as a justification for a higher level of rates, but nevertheless, Florida is a terminal state, the lines in Florida are terminal lines, and they are therefore in the position of stub lines, those lines leading out from [fol. 515] Jacksonville south, where the authorities have repeatedly recognized that those stub lines, not in a position to participate in through traffic might properly be accorded rates somewhat higher than the general level of rates on the Trunk Lines or the Trunk stem of the system. I here refer to Carriers' Exhibit No. 212. The statement filed shows present and proposed local mileage single line rates on fertilizer and fertilizer material between points in Florida as compared with the proposed Royster Scale. As to carload shipments of fertilizer, it will be noted that the scale proposed by the carriers will result in material reductions in the present scale to and including 140 miles, with the exception of 94 to 100 miles, and 111 to 120 miles, and the block 141 to 150 miles inclusive, where there would be no change. Beyond 150 miles, the proposed scale will result in advances.

On fertilizer material, now rated 75 per cent of the fertilizer rate, there would be advances in the proposed scale with the exception of the first two mileage blocks. In this connection, it might be well to call attention to the fact that in the several comparisons filed by previous witnesses, where the Royster Scale did not result in reductions, it was in almost all cases for the longer distances; generally speaking; distances beyond 150 miles. As has also been shown by other witnesses, the average movement of complete fertilizer is for distances substantially less than for 150 miles, whereas, fertilizer materials move for the longer distances. That is true in Florida; I think that will be borne out by the traffic or revenue test. In considering the reasonableness of the Royster Scale for the longer distances, we ask that the Commission bear in mind the fact that the fertilizer materials, on the average, are of substantially greater value than complete fertilizers, and there-

fore, proportionately higher rates on same would not be unreasonable.

The Class M mileage scale applicable in Florida, exclusive of the advances under General Order No. 28 and Ex Parte 74, and 10 per cent reduction under Docket 13294 of July 1st, 1922, has been in effect for a number of years, with the exception of a reduction effective July 1st, 1903 of 10 cents per ton for distances up to 70 miles and 5 cents per ton for distances 71 miles to and including 100 miles.

[fol. 516] Now, as to the joint haul rates. The present basis for joint haul rates under the Florida Commission's Freight Rule No. 19 is combination of locals less 10 per cent, where the joint haul is over two independent lines and combination of locals less 20 per cent where the haul is over three or more independent lines. (Tes. 595-598.)

Direct examination (continued):

Just before noon adjournment I had referred to Carriers' Exhibit 213, which is statement showing combination of local mileage rates for varying distances on fertilizer rated Class M in carload quantities, and fertilizer material rated 75 per cent of Class M in carload quantities, as compared with the proposed joint haul scale. In this statement the joint hauls are calculated only on basis of two-line hauls or combination of locals, less 10 per cent., indicated in lines A and B; line C represents the proposed joint haul scale. To illustrate, assume a joint haul of 50 miles made up of 25 miles over two lines, the present fertilizer rate is 304 cents; fertilizer material rate 228 cents, and under the proposed scale 214 cents, representing a reduction of 90 cents per ton on fertilizer and 14 cents per ton on fertilizer material. Assume a haul of 50 miles on one line and a haul of 25 miles on a connecting line, or through joint haul of 75 miles, the present fertilizer rate is 335 cents and the fertilizer material rate is 251 cents, the proposed rate is 248 cents, representing a reduction of 87 cents per ton on fertilizer and 3 cents per ton on fertilizer material. Assume haul of 75 miles on one line and 25 miles on a connecting line, or joint haul of 100 miles, present fertilizer rate would be 365 cents and the material rate 274 cents, whereas under the proposed joint scale both would become 282 cents, representing reduction 83 cents on fertilizer and advance of 8 cents on fertilizer material. Reductions on fertilizer would be the

general rule and on fertilizer material there would be both reductions and advances, the advances being largely due to the unreasonably low basis for present rates on fertilizer material.

As indicating the effect of the proposed rates from representative fertilizer manufacturing points in Florida to representative intrastate destinations in Florida, I will here [fol. 517] refer to Carriers' Exhibit No. 214. In this exhibit we take Tampa, Florida, and Gainesville, Florida, as representative points of origin, and stations on the Atlantic Coast Line and Seaboard Air Line Railways as representative destinations. The rails of the Atlantic Coast Line and Seaboard Air Line Railway reach both points of origin, therefore the distances are figured by the continuous hauls of the respective lines, except at common point destinations we have used the short line distance via either the Seaboard or Atlantic Coast Line. It will be noted the proposed rates will result in both increases and reductions, but where advances occur they will not be material except for extremely long hauls, and for such hauls it is hardly probable there will be a movement for reason that those destinations would more than likely be served by manufacturing plants nearer the destinations. For example, on page 2 of this exhibit we have shown destinations on the Seaboard between Jacksonville and Chattahoochee River, that is the line running out due west from Jacksonville, and present and proposed rates from Tampa, Florida. It is hardly probable Tampa would expect to supply fertilizer to this part of the Seaboard as against the extensive production of fertilizer at Jacksonville, Florida, having an advantage in distance of approximately 180 miles. (Tes. 599-601.)

Now, as to the next adjustment, as witness Menzies has stated, the carriers propose the application of the so-called Royster scale for single line or joint haul application between points in Florida and points in adjacent States. For example, from points in Georgia, such as Albany, Blackshear, Valdosta, and from South Atlantic Ports, namely, Brunswick, Savannah and Charleston to destinations in Florida. The general basis for interstate rates on classes and commodities to and from Florida is combination on Jacksonville. Now, when I speak of combination I do not mean necessarily full combination of locals between Jacksonville; either combination of locals or differential basis

made up of proportional rates to and from Jacksonville. This basis has consistently been adhered to, and it has been established and repeatedly approved by the Interstate Commerce Commission in various adjustments and in our opinion there is full justification for the continuance of same. The peninsula of Florida is peculiar to any other State in [fol. 518] the United States, in that the trunk lines in Florida do not and cannot participate to any extent in the movement of trans-State traffic, i. e., traffic originating at or destined to points in other States passing through the State of Florida. We are not proposing combination on Jacksonville proper; but I just wanted the record to show very clearly that we are departing from the usual basis, and this is a radical departure, and we still feel that there might be justification in putting these rates on the usual basis of combination, or differential basis, except for reasons I will later explain. I want to show that we are making an unusual and unprecedented concession to the State of Florida and to the fertilizer interests. Not only that is made with respect to fertilizer and fertilizer materials, and is based particularly upon the circumstances and conditions that surround the handling of that particular commodity.

The outbound movement in any volume is almost entirely limited to perishables, lumber, naval stores and phosphate rock. There is but little manufacturing in the State, and the inbound tonnage is limited largely to food and clothing for the inhabitants, together with fertilizer, machinery, etc.

The Florida situation, with its thin population per mile of road, results in the condition of low traffic density less than in any other State east of the Mississippi and South of the Ohio and Potomac Rivers. (Tes. 601-603.)

In support of my statement as to the low traffic density in the State of Florida as compared with Southern Territory generally, I will refer to Carriers' Exhibit No. 215, statement showing average miles operated, revenue ton miles and revenue ton miles per mile of road on Class 1 roads in Southern Region for years 1922 and 1923, as compared with the traffic density on that portion of the Class 1 roads in the State of Florida. It will be found that the average traffic density on the Florida lines is, in round figures, 39 per cent. of the traffic density of Class 1 lines in Southern Region. The exhibit indicates the source of this information, and speaks for itself. That exhibit covers the

two years, 1922 and 1923. 1924 is not available. That is, of all Class 1 lines. That information is usually gotten up by the Bureau of Railway Economics. As an individual line, I know of course the figures are obtainable.

[fol. 519] I am sure we have the individual figures, but I mean for the Class 1 lines of the Class 1 roads in Southern Territory as a whole. I have not any figures on that. As to those exhibits, I want to be entirely fair. Since this exhibit was prepared we have found that in the general averages of the Class 1 lines in Southern Region, we have included the revenue ton miles of the entire line of the Illinois Central Railroad, whereas, as a matter of fact, taking 1923 to illustrate, it shows the average miles operated 4,840.25, whereas, that part of the Illinois Central in Southern Region is only 1,676 miles.

I don't think there is any way of determining what their traffic density is in Southern Territory alone on that line. The only thing we can do is to take the revenue ton miles per mile of road, and multiply that by 1,676, to arrive at the revenue ton miles, and take that portion of that total figure included into this general average. On that basis it would reduce the average revenue per ton mile of road from 1,411,665 to 1,270,000. And the ratio of the average ton mile per mile of road in Florida to that total figure would represent 44 or 45 per cent. instead of 39 per cent. I have previously indicated. That is, the revenue ton mile per mile of road in Florida would represent about 44 or 45 per cent. of the general average in Southern Region.

I think it is an acceptable basis, that where the higher the traffic density the lower the rates can properly be relatively, and it is about the only thing that represents the density of traffic.

"Q. Now, just to test that idea, and to show the possible exceptions to it, I notice here that the Atlantic Coast Line System for 1923 has a traffic density of 763,668, whereas, the Carolina, Clinchfield & Ohio has a traffic density of 3,465,021. Now, what would you say that that would indicate, that rates ought to be substantially lower relatively on the Carolina, Clinchfield & Ohio than on the Atlantic Coast Line?

"A. That is not, of course, a conclusive figure. I think you have got to take into consideration somewhat the traffic

moving. Of course, that density on the Carolina, Clinchfield & Ohio represents a large percentage of coal traffic."

[fol. 520] That is true of some of these other lines.

As previously stated, the Interstate Commerce Commission has established and repeatedly approved the combination basis of interstate rates in and out of Florida. For example, in the several fruit and vegetable adjustments out of Florida, also in the live stock adjustment, I. & S. Docket 1563, 74 I. C. C. 419, in the naval stores adjustment, I. & S. Docket 1900, 87 I. C. C. 740, and in the fertilizer adjustment from Blackshear, Georgia, Docket 13514, 87 I. C. C. 654, and in the brick and clay products adjustment, I. & S. Docket 1885, 88 I. C. C. 543. For ready reference, I will call attention to Carriers' Exhibits Nos. 216 and 217, extracts from the several decisions of the Interstate Commerce Commission bearing on this question. One of the Commissioners has also apparently recognized this basis in a tentative report in I. C. C. Docket 13494, on the class rate adjustment. (Tes. 603-606.)

We desire it clearly understood the combination basis heretofore applied is, in our opinion, entirely proper and reasonable, but for reasons I will later give you, we feel that fertilizer in this instance requires some special treatment, and in departing from the general basis, makes a substantial contribution to the fertilizer interests, either the manufacturer or consumer, whoever gets the benefit of rate reductions.

We were not quite satisfied with the extent to which that basis was recognized in the tentative report in 13494; it only recognized it in principle, and not in revenue.

The only justification for departing from the general basis in the case of fertilizer moving into Florida from adjacent States is that, as we understand it, the purpose of this investigation is to arrive at a uniform level of rates that can be reasonably applied both interstate and intrastate. Fertilizer is the only commodity manufactured to any extent in Florida, and consumed within the borders of that State. As a matter of fact, by far the larger portion of fertilizer used in Florida is manufactured in the borders of the State. There is a movement from these adjacent States into Florida, but it is comparatively an insignificant movement. I said fertilizer consumed in Florida is largely

manufactured in that State. We are proposing for interstate application within the State of Florida the single line [fol. 521] and joint haul so-called Royster scale. The important fertilizer manufacturing points in Florida, that is, important more or less, are Tampa, Lakeland, Orlando, Gainesville and Jacksonville. There are of course other minor mixing plants.

Pensacola is an important point from a manufacturing standpoint, but I don't think they ship much in the direction of Jacksonville.

There are likewise fertilizer factories at Albany, Valdosta, Blackshear, Savannah, Georgia, Charleston, South Carolina, and Brunswick, Georgia, and possibly other points in the same general territory, shipping in more or less volume to consumers in the State of Florida. The Florida manufacturer having the benefit of the single line or joint haul continuous mileage scale under the carriers' proposed adjustment, the interstate shipper at the points mentioned would be at a disadvantage on a combination or differential basis over Jacksonville, and therefore, the only way that the several manufacturing points can be kept on a parity, distance considered, is by applying the distance scale from the adjacent interstate points into Florida—and this basis will remove any ground for a discrimination complaint and appears to us a reasonable basis considering the comparatively short hauls between the interstate points of origin and the Florida State line.

The basis we are proposing from interstate points of origin in adjacent States and South Atlantic Ports into Florida will result in material reductions. In support of this statement I will call attention to Carriers' Exhibit No. 218, showing the present and proposed rates on fertilizer from Albany and Blackshear, Georgia, as representative points of production, to destinations on the Seaboard Air Line Railway and Atlantic Coast Line Railroad in Florida. The distances in this statement are figured by short line workable routes, as indicated. This exhibit speaks for itself, and shows that we are proposing a basis of rates that will actually make many reductions in the already extremely low rates recently established by the Interstate Commerce Commission in the Blackshear Case, Docket 13514, 87 I. C. C. 654. (Tes. 606-609.)

[fol. 522] As illustrating the effect of the proposed basis of rates from Jacksonville, Brunswick, Savannah and Charleston, to Florida destinations, I here direct attention to Exhibit No. 219, which shows representative points of destination on the A. C. L. Railroad and S. A. L. Railway in Florida, the distances reflecting the short line workable routes as indicated in the exhibit. It is intended to apply the mileage scale for the actual distances from the several ports, and this basis will result in both advances and reductions; more substantial reductions being in the rates from Jacksonville.

Now, at the present time the adjustment from South Atlantic Ports into Florida is on a differential basis. That is, the rates from Jacksonville are on the actual mileage, Savannah, exclusive of the two 25 per cent advances and the 10 per cent. reduction—Savannah was made $1.00 per ton over Jacksonville; Brunswick was made the same as from Savannah; Charleston was made 50 cents over Savannah, or $1.50 over Jacksonville.

It is a fact as appears from this exhibit that under the Carriers' proposal there will be reductions in a great many of the rates that were established by the Commission in the so-called Blackshear case. That we consider those rates extremely low, and yet what we are proposing here will actually result in reductions in a good many of those rates. The carriers were not at all satisfied with the decision in the Blackshear case; they filed a petition for rehearing in that case, and that is now pending before the Commission.

I think that these rates that we are proposing are lower than maximum reasonable rates on fertilizer. My idea that the fertilizer development in the South has grown up from the time when we handled fertilizer for practically nothing, and as Mr. Burr said, when we made a charge for it, a large part of it was rebated, that is the basis for our present adjustment today, and I candidly think that we might have reasonably proposed a substantially higher level of rates than we are proposing here.

As to the reasonableness of the rates per se, I do not think the Commission would be justified in requiring us to go as low as we are proposing voluntarily to go. I don't [fol. 523] mean to say these rates will be confiscatory, I think they will pay us something about the out-of-pocket cost.

As to what is our reason for going lower than we think would be reasonable: From these interstate points of origin into Florida, as I explained, our reason for doing it there is to put the interstate shippers shipping into Florida on a parity with the infrastate shipper selling from the same point of destination.

I think one reason is that the rates we are proposing bear the stamp of reasonableness of the Interstate Commerce Commission; I think that is one of the controlling reasons. I am speaking of the question as a whole. I understand the question involved is the whole question, and not any particular situation. I think that is one reason that influenced us in using the Royster scale.

"By Com. Eastman:

"Q. You think, in view of the Third Royster Case, you could hardly expect anything higher than that?

"A. I say, it bore the stamp of approval by the Commission.

"Q. But you are not doing it because you think any concession ought to be made to either the fertilizer producing industry or the fertilizer consuming industry?

"A. I don't think so, sir; I think a somewhat higher scale would be reasonable to charge for the services involved, to all interests concerned. Now, that is my personal view. I do not know that others agree with me on that."

I really think that fertilizer is one of the commodities that might be reasonably advanced. You evidently have in mind the Hoch-Smith Resolution. I think fertilizer is one of the commodities that might be reasonably advanced and nobody injured. (Tes. 609-612.)

Well, it is mighty hard to tell what the resolution means, but all I can get out of it is in trying to reach some general level, and some rates may be too low and others too high.

It is my view that if in the course of the investigation the Commission should undertake a redistribution, to use the language of the resolution, of rates in Southern Ter- [fol. 524] ritory, and an adjustment with the idea of establishing a better relativity as between different com-

modities, that fertilizer is certainly not one of the commodities that should be reduced, but on the contrary, if anything be advanced, I have no commodity in mind now which I think ought to be reduced.

Now, as to the value of commercial fertilizer used in Florida, in further justification of the reasonableness of the proposed Royster scale into Florida, it is well recognized that value of the commodity is one of the elements to be taken into consideration in fixing a reasonable rate, and incidentally, the fertilizer generally used in the Florida soils represents the highest priced formulæ used in Southern States, as stated by Mr. Brantley, of the Blackshear Manufacturing Company, Blackshear, Georgia, testified in that case that the values of the formulæ used in Florida were about double those used in Georgia (T. R. pages 65 and 70); in the same case Witness Nickerson, Citrus grower, Tampa, Florida, stated that the cost of fertilizer used in the citrus groves ranges from $36.00 to $47.00 per net ton, as compared with the average value of commercial fertilizer of $28.00 per ton (T. R., pp. 162, 163). When in Tampa, Florida, on the 13th instant, I had occasion to look over a number of paid vouchers covering fertilizer purchased this season, and the fertilizer for citrus culture was on the basis of $36.00 per net ton, and for vegetable formulæ $47.00 per ton, cash basis. Those were wagon priced. That was fertilizer hauled from the factory at Tampa. It was the f. o. b. price, factory. (Tes. 612-614.)

Cross-examination:

I referred with approval to that feature of the decision of the Interstate Commerce Commission in the Blackshear case announcing higher rates in Florida than just north of Florida. In the Blackshear case the differential, joint line over single line, is 20 cents per ton. The differential we are now proposing varies; it will run around 34 cents. I think the Commission erred in the Blackshear case in adopting any such scale for that territory, and I think the differential between the single line and the joint line haul was lower than it should be. I referred to the peculiar situation in Florida that it is a terminal state, and the [fol. 525] trunk lines going down into Florida are stub

lines. I think it reasonable to say I used that situation to uphold my argument that the rates into and out of Florida should be on a higher level than elsewhere. I am not able to state why that principle has not been carried into passenger rates and express rates by the carriers. I know nothing about passenger or express rates; I would have to know the basis for those rates. I am not sufficiently familiar with the basis of the rates.

I referred to the relatively small number of fertilizer plants in the interior on our line as compared with the port plants. There is no question but what the port plants not only on fertilizer, but any other manufacturing industry that gets a large part of its material—its raw material by water, has an advantage—to which it is entitled over an interior manufacturing point.

"Q. Now, Mr. Ketner, speaking of Florida's peculiar situation. Can you cite me to any scope of country in Florida that is a little productive—that is, as barren of population—and where your line of railroad is an expensive to maintain as that stretch of country from Jacksonville to Savannah, Georgia?

"A. I don't know of any poor section right now. But we have got to go through that section to reach Florida. It is just one of those difficulties that any pioneer line has to undergo, is to go through a barren territory to get to some territory they think might be productive."

That line is not still barren. We are spending considerable money in fostering a drainage project in that particular section. That section has also yielded us substantial revenue in lumber traffic. That has not gone; we still have some. Not many years ago the center of production of lumber on that line was right in that section. Of course a great deal of lumber has been taken out of there, but there is still a substantial movement of lumber out of that territory. (Tes. 615-618.)

As to what we are doing to avoid 4th section violations in applying the joint scale versus single scale: The 4th section problem is one that will be covered, as I understand, in later proceedings, and we will have to give that [fol. 526] consideration at that time. We will no doubt run into many 4th section difficulties in that adjustment,

but I have not undertaken to testify on that. The majority of these fertilizer manufacturing points in Florida are reached directly by the respective trunk lines, and we won't have many joint hauls. Until we have some more figures as to the actual movement, I could not tell you as to what extent there is joint-haul movement, or what relation the joint haul is to the single line haul. That will very likely come out in the traffic test. Offhand, I think the joint haul is substantially less than the single line. My exhibit 215 covers the revenue per ton per mile of road on intrastate as well as interstate traffic.

The operation of the mileage scale which the carriers have here submitted would cause advances in charges in the State of North Carolina on materials now moving on basis of 90% of the fertilizer rate, loaded in 50,000 or excess car; that would represent 10% increase. Instead of taking 10% off of those figures. I would not be willing to say offhand that under the level which I have submitted, charges in South Carolina, intrastate, would be advanced; I have not examined the exhibits to see that. There would probably be a general increase in the State of South Carolina on fertilizer. I think that would be true also of the State of Georgia; the Georgia rates are very low. I will accept your statement that it would be true as the whole of the State of Alabama. I was dealing with intrastate. I think it is a natural assumption that it is true as to all of the State of Mississippi. I don't know if it would be true of all of Louisiana east of the Mississippi River. I would not say that there would result advances in interstate rates, one State to another, in many instances. Because, I think some of the previous witnesses testified a large part of our interstate adjustment, in fact, that part of the adjustment moving the preponderance of the fertilizer tonnage is now on the Royster scale, the scale the carriers are proposing in this proceeding. (Tes. 618-621.)

"Q. Mr. Ketner, in your connection with this matter, has it gone only with your effort to prepare certain testimony for use in this case as affecting Florida, or have you [fol. 527] had any part in the determination of the policy which has been engendered in the determination to propose the Royster scale?

"A. I have had very little to do with the several conferences and detailed handling of this adjustment. I have had something to do with the policy question, as to whether we would use the Royster scale as a fair basis, and I have just gotten into the case in detail in the last week."

I am not familiar enough with the operation of the suggested rate level in the States of South Carolina, Georgia, Alabama and Mississippi to agree that there would be general advances in all of those States. That result was taken into account by us, however. We considered what we were proposing would bring about, an not unreasonably high general level. I have not admitted that there would be general advances in the States named; I did not have any figures before me. I knew of course in any general levelling process, there must necessarily be increases and advances. I did not know definitely, but it was the natural assumption that there would be—except North Carolina, on fertilizer.

"Q. Then, finally, I will put the question this way. So far as you were concerned with the policy of it, you did not attempt to estimate the extent to which the figures that you sought approval of, would generally advance the transportation costs on fertilizer in the South?

"A. That could only be determined, Mr. Cotterill, by revenue tests, I think."

I did not think what we were proposing would do violence to the fertilizer traffic as a whole. It would be a great surprise to me if it yielded under my figures an increased revenue of about $1,000,000 per year. Concerning South Carolina: The rates prior to the reduction for 1924 by the State Commission were much higher than the Royster scale, and the South Carolina Commission at first agreed to apply the Royster scale. They actually issued a circular on it, and I issued a tariff employing the Royster scale for South Carolina application; the farmers complained of increased carload minimum from 20,000 to 30,000 pounds, and the State Commission withdrew their circular. I cancelled my [fol. 528] tariff, which had not gone into effect. They very readily accepted the Royster scale as being reasonable then. In Alabama, the State Commission has made violent reductions within the past year, and every effort was made to

bring about violent reductions in the State of North Carolina. I think that it is true when you go to considering any question of revenue you should take the situation existing prior to this campaign carried on in the various States.

My recollection of our instructions is that the traffic test will be predicated both upon the rates we are asking and those now in effect in South Carolina and Alabama, and the rates in force prior to this reduction.

As to whether that circular mention was issued by the South Carolina Commission without any formal hearing or complaint: It is hard to determine if proceedings before that Commission are formal or informal. My recollection is there had been a so-called formal hearing. I may be in error there. (Tes. 623-627.)

(Witness excused.)

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F. W. KIRTLAND was thereupon called as a witness and — been first duly sworn, testified as follows:

Direct examination:

I am the freight traffic manager of the Florida East Coast Railway Company. I desire to make a very brief statement as to the position of the Florida East Coast Railway Company in this case.

I understand the Florida rates are not directly in issue in this case, and that the decision of the Commission in this case will not go to the measure of the Florida rates. Under the laws of Florida the State Commission cannot increase or reduce the rates until after a public hearing. It has been universally agreed that the rates in Florida, on account of the conditions existing in that State, should be on a somewhat higher basis than the rates in the States farther north. For that reason it has seemed to us that it would not be appropriate at this time to offer any suggestion as to what the rates in Florida ought to be. It is our feeling that before making any suggestion as to the Florida [fol. 529] rates we should first know, what the rates interstate and intrastate will be in the States farther north. That is our position, so far as suggesting at this time any intrastate rates.

Now, in reference to the proposal of the so-called standard lines in making the rates on fertilizer into Florida interstate on a mileage basis, we would like to express our views, so far as that business would affect the Florida East Coast Railway Company. We have no fertilizer plants located on the Florida East Coast Railway. All of the fertilizer that we receive is delivered to us on an interchange track at Jacksonville. We don't serve Jacksonville. Our road begins at the end of the St. Johns River. We get into Jacksonville on the Terminal Railway Company.

"By Mr. Burr:

"Q. Mr. Kirtland, the Painter Fertilizer Company is in South Jacksonville, is it not?

"A. Practically extinct, Mr. Burr. They do practically no business now, and I did not think that their operations were of sufficient amount to be of any moment in this case."

The Florida East Coast Railway goes to the north bank of the St. Johns River, but not into the City of Jacksonville. We have a terminal in the City of Jacksonville; we operate over the Jacksonville Terminal Company; part owner on an operating basis. That is, passenger terminal.

We have a freight terminal, the East Coast Terminal Company, but in order not to mix this railroad up, I am speaking primarily now to fertilizer, and that comes to us over the other lines on the joint interchange.

Our records show that 90 per cent.—approximately 90 per cent. of the fertilizer we have originates on the rails of other lines at Jacksonville. Transported by those lines an average of from 3 to 10 miles. Now, it is our feeling that a reasonable rate should be established for the handling of fertilizer delivered to us at Jacksonville. The bulk of the business originates on other lines in Jacksonville; pays the transportation charge for delivery to our line. After having fixed a reasonable rate for the transportation of that 90 per cent of the business, we do not feel [fol. 530] that we should be called upon to absorb out of our earnings the expense of a fertilizer plant located somewhat farther north. (Tes. 628-631.)

We get our mileage rates from Palm Beach on all of the business the Seaboard gives us.

We have not been able to bring ourselves to a point where we can see why we should be called upon to shrink our earn-

ings, in order to take the place of a disadvantageous location on some other line. Now, in the proposal of the so-called standard lines to establish through rates interstate to points on the East Coast, it is merely an effort on their part to go along with the first phrase of "a dead-level of freight rates" without regard to those fundamentals that have heretofore been regarded as of prime importance in making freight rates. It has generally been understood that the rates in the South should be on a somewhat different level from the rates in the East, and the rates in the West should be on a somewhat different level from the rates in the East and South, but the fact is that the conditions on the Florida East Coast are so radically different from the operating conditions on any of the other Southeastern carriers, we cannot understand why there should be a dead level of rates. And so far as that is concerned, our conditions are radically different from what they are on any other Florida line. So that being true, it has seemed to us that the rates prescribed for the use of the Florida East Coast Railway Company should be based on the conditions of the Florida East Coast Railway Company, and not in conformity with some preconceived idea of a dead level or uniformity of rates based on conditions in some other section of the country, and under operating conditions that do not apply at all to the Florida East Coast. The rates on the Florida East Coast on fertilizer and the other lines are the same.

Those intrastate rates were prescribed for our use by the Florida Railroad Commission. We get the same rates, whether intra- or interstate.

The rates were prescribed for our use by the Florida Commission, and we have always applied those same rates both interstate and intrastate, with some certain exceptions, but fertilizer was not one of the exceptions. That was voluntary on our part. So, so far as interstate traffic [fol. 531] is concerned, I have not sought to distinguish the situation on the Florida East Coast from that of other roads, because the rates were the same, and we did not seek to distinguish it now, we want to have the same rates on interstate as on intrastate now.

"Q. Do you want to have different rates from other roads?

"A. You mean, do I want our rates to be different from the so-called standard lines?

"Q. Yes.

"A. I do not care what rates they accept. I am only speaking now for the Florida East Coast." (Tes. 631-634.)

As I have said, I do not feel in position yet to recommend any rates, for the reason that it has been universally agreed heretofore that the rates in Florida should be on a somewhat higher basis than in States farther north, and we don't know yet what rates are going to be prescribed for the States farther north. After that has been determined, the Florida Commission will then call a hearing, and everybody will be given an opportunity to express themselves at that time, and we will suggest to them what we consider a reasonable basis of rates in view of the rates prescribed for the use of the lines north of Florida. No matter what was prescribed north of Florida, we would not necessarily propose something higher in Florida. But we do not feel that this is the appropriate time to make a specific recommendation. Well, to be perfectly frank, we think the present scale of rates prescribed in Florida is fundamentally on the wrong basis, and what we have in mind when called upon to suggest a line of rates to suggest some rather fundamental changes in that basis. Now, for example, it is our thought that the rates at present prescribed by the Florida Commission for short distances are too high, and for long distances, too low. And what we have in mind, suggesting a scale of rates predicated on lower rates for short distances up to 150 miles, and higher than the present rates for distances greater than that.

On 61 per cent of our fertilizer, the average haul is 375 miles, and we have always thought it was exceedingly unjust for the Florida Commission to require us to haul that [fol. 532] for a car haul of 10 cents a ton a mile, while you would haul the fertilizer one way, and the empty car the other. We think that you, Mr. Burr, will agree that the rate is too low.

"By Com. Eastman:

"Q. Now, on interstate traffic. Whatever the interstate rates are, do you join in the proposal of the other carriers with respect to interstate rates?

"A. I have undertaken, Mr. Commissioner, to make our position plain in that. They have suggested the Royster scale intrastate.

"Q. Interstate also.

"A. Well, we want to take it as we come to it. We are not prepared at this time to join in asking for the Royster scale in Florida, for the reason that we would prefer to wait and see. * * *

"Q. (Interrupting.) I am not talking about intrastate. I am talking about the rates which apply to your interstate traffic. We have got that right here now."

At this time we are not asking for any change in our interstate rates. We don't think they ought to remain as they are, but I said, at this time we are not asking for any change. We are going to state our position after the Commission decides what would be fair and reasonable rates in the States north of Florida.

Our position is that our rates should be the same, whether interstate or intrastate. We want the combination basis on Jacksonville preserved; and we want our factors south of Jacksonville the same as intrastate.

We want the combination on interstate business. We want our full combination on interstate, and not 10 per cent less than that combination, as would exist if it was handed to us in intrastate commerce. What I mean to say, that we wanted the same rates from that interchange track, whether it originated at Jacksonville, Blackshear, or Albany, because the transportation conditions are exactly the same with us, and we cannot see upon what grounds we should charge a man at Jacksonville one rate and a man at Blackshear another rate, and a man at Albany another rate, and the man from Atlanta another rate.

[fol. 533] I do not know that I understand what you have in your mind, but I will state this, that it is another one of those cases where the Coast Line and the Seaboard get into controversy with you and their shippers, and they went there on the Class P, and made some compromises by reductions to avoid lawsuits, and when you issued the order, you made it apply on the East Coast. We applied on intra-, did not apply on interstate. We went into court; we did not win on that order, for the reason the Florida Statutes under which we were proceeding provided that any order of the Florida Commission shall be considered sufficient for prima facie evidence of its reasonableness, and they said we had not affirmatively proved that it was unreasonable,

because the experts of the Commission and the experts of the Railroad disagreed.

They had to accept your order as prima facie evidence of its reasonableness. They reached the conclusion in that proceeding that we were making 10 per cent on that traffic, but it was not, because we were not even paying interest on our bonds, and nothing on the stock. That order said that we were making 10 per cent on the lowest class traffic that we were handling, that paid about 8 cents a car mile, and the fact was at that time we were not doing anything better than earning operating expenses on the whole traffic, including the high class traffic. (Tes. 634-639.)

I did not mean to bring up all of these questions Mr. Burr, in answering yours, but I hope that I have made myself clear in that our transportation conditions are identically the same, because the business is all delivered on one track, and it is not intended as a device to enhance our revenue, but it is intended to represent the true rate based on transportation conditions.

Is is my contention that we have nothing to do with the Seaboard or the Coast Line, but that our rates should be based on our operating conditions, and that our operating conditions are so dissimilar to those lines that any rate that mght be found reasonable for those roads would not necessarily be reasonable rates for our road. That is not to say that we are necessarily entitled to higher rates than they are. If our operating conditions justify it, you might make it lower. But what I am trying to convey to your [fol. 534] mind is that we do not approve of this dead level of rates, and uniformity without regard to your operating conditions.

"Q. Well, if we are going to give regard to operating conditions, you have got to have something to compare them with. And in Florida you have got comparison right there. Now, are your operating conditions worse than that of the Seaboard Air Line?

"A. Yes, sir.

"Q. You have higher traffic density?

"A. Yes, sir; and a higher operating cost.

"Q. And a higher passenger traffic, haven't you?

"A. Yes, sir; and it is confined to a class of traffic that necessitates a very high cost for handling, and we do not

have the phosphate rock, lumber and naval stores moving in heavy volume throughout the year the same as the Coast Line and the Seaboard have.

"Q. Is not your net operating revenue per mile of road higher than that either of the Coast Line or Seaboard in Florida?

"A. Well, I did not make that comparison before coming to this hearing, Mr. Commissioner. But I would be very glad to make that comparison and furnish it to you in this case.

"Com. Eastman: I will be glad to have it."

The Atlantic Coast Line and the Seaboard Air Line have a very large tonnage of phosphate rock, road-building material, forest products and naval stores moving throughout the year. It moves in cars to practical capacity of the equipment. That enables them to have uniform mechanical operating conditions throughout the year. They are, therefore, not so much subject to fluctuation in operating conditions, and costs as a railroad who has practically none of that class of traffic. Our traffic is composed almost exclusively of the fruit and vegetable traffic, and the passenger traffic.

Then, within the past two years that has been supplemented very largely by building materials. For the past two years the erection of apartment houses and hotels has practically doubled each year, and it looks as if it will double this year over what the total capacity was last year. [fol. 535] Now, it just so happens that our fruit and vegetable traffic and peak passenger traffic comes along about the same time. And, I will tell you something that even you probably have not. * * * That is not true of the Coast Line too, to the same extent because their fruit and vegetable traffic comes later. Oranges possibly are moving out in volume at that time, but not vegetable traffic. Now, then, here is a development that may not have occurred to you. Our building operations now are heavier in the winter time than they are in the summer, due to the fact that during the winter months the skilled laborers from the far North, in the Northern territories where it is cold, and there is not much building operation, they come down there, and they are enabled to get the skilled mechanics in larger numbers,

and get better results out of it, so that it gives the building materials, and fruit and vegetable traffic, and the passenger traffic, within a period of about three months. Now, as you well know, we have to make our estimates, and we have to be prepared to handle it, the maximum that business that comes within two or three months. And a condition might develop overnight that would upset every estimate that has been made, and that the growers themselves cannot tell hardly from week to week just what the movement is going to be the following week, due to cold weather, which will retard it, and warm weather, which will hasten it, and a little cold weather kills it, and a little rain drowns it out. Now, that means that we have got to be equipped to handle the maximum. Now, what are we up against right now? While we have had a big increase in earnings this past year, we have had a decrease in net earnings. We had congested conditions, and everyone knows that it is expensive to operate under congested conditions, where you have more business than you can reasonably and promptly handle. Now, as a result of that, we are making large capital expenditures to double-track the line, to take care of the peak business of two or three months, and all of that equipment, cars, engines and double track, will be idle for nine months. Now, do you know of any railroad in Florida that operates under any condition even approaching that? (Tes. 639-644.)

[fol. 536] "Q. I know this too, that the Seaboard Air Line thought that the business was attractive enough on the Florida East Coast Railroad to build a railroad down there to divide up the business with you.

"A. There is a case, too, where I think they are using mighty poor judgment, because I can tell you that they built 70 miles of railroad there from Okeechobee to West Palm Beach, where they will never handle a pound of freight, and never produce a pound of freight, and I don't understand that to be good judgment."

Now the failure to produce these forest products that I mentioned that are produced on the Atlantic Coast Line, makes it very necessary that we haul lumber and the like down the East Coast in heavy quantities, according to your

own statement—upon which you get the long haul, and 13th Section violation on every bit of it.

"Q. That is because you are hauling from Georgia on an old condemned rate?

"A. Not condemned by the Commission."

Jacksonville, geographically is the natural gateway for the Florida East Coast. I do not know that you would call our hauling of cement enormous, but there is a very large building operation going on on the East Coast. I know that the cement people say that the biggest per cent of increase in consumption of cement in Florida is on the East Coast Railroad. (Tes. 644-645:)

I understand that the biggest per cent in the South, next to North Carolina, is in Florida. I did not know, further, that they have showed by statistics that the loading on our line is heavier than on any other line in the South, but I will accept that. I did not know that they showed that the average loading on our line for practically two years was heavier than in any other territory in the country, on cement, but I will accept it, I think it is true.

"By Mr. Tench:

"Q. Mr. Kirtland, you made the statement twice that it had been universally agreed that rates to Florida should be somewhat higher than the rates generally in the South-[fol. 537] east. I think the Florida Commission would very much like for you to modify that word universally agreed.

"A. Well, I can quote the Florida Commission as my authority.

"Mr. Burr: No use to quarrel with him about it, let him say it.

"The Witness: I will quote the Florida Commission as good authority; they have stated that repeatedly in their Annual Reports, and otherwise.

"By Mr. Burr:

"Q. Have you read the last Annual Report?

"A. I have not seen it.

"Mr. Burr: Well, I commend it to you." (Tes. 646-7.)

(Witness excused.)

F. A. Burke was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

I am connected with the Nashville, Chattanooga & St. Louis Railways; I have had a number of years' experience in traffic matters, particularly in connection with the traffic department of that company and I am familiar with the adjustment of fertilizer rates in Tennessee.

In my testimony I will deal particularly with that situation. I have prepared a series of exhibits, numbered 220 to 233 inclusive, which I desire to offer in evidence at this time.

(The statements were thereupon received in evidence, and marked "Respondents' Exhibits Nos. 220 to 233, inclusive, Witness Burke.")

The movement of fertilizer from manufacturing points in Tennessee is under specific rates with the exception of rates from Chattanooga to C. N. O. & T. P. stations, and for those the mileage scale is in effect, and with that exception the fertilizer in Tennessee moves under specific commodity rates.

[fol. 538] We have had no proceedings before the Interstate Commerce Commission involving the general level of fertilizer rates, but when we attempted to increase the rates on fertilizer in Tennessee in line with Ex Parte 74 increases of 1920, the Tennessee Railroad Commission sustained the increased rates on fertilizer and a number of other commodities, and they set that matter down for hearing at Nashville, Tennessee, on November 11th and 12th, 1920. At the hearing before the Tennessee Commission Mr. T. M. Henderson, Commissioner of Nashville Traffic Bureau appeared on behalf of the Nashville fertilizer shippers, and Nashville is the largest fertilizer manufacturing point in the State of Tennessee. The average annual movement from Nashville of fertilizer is approximately 175,000 tons. Mr. Menzies' exhibit shows 80,000 tons, but our investigation developed an actual average movement of 175,000 tons, intrastate and interstate.

Mr. Henderson appeared before the Tennessee Commission and stated as follows:

"Mr. Commissioners, I am representing the Nashville shippers on all of these commodities involved in this suspension, except the fertilizer shippers, who told me that they have no complaint about the Tennessee rates on fertilizer. So far as Nashville shippers are concerned, and no objection to the increase provided of course it is made general. They have no complaint about the fertilizer situation."

And then he further goes on to say:

"Some time ago I had a conference with one or two of the fertilizer people, and they stated at that time that the Tennessee fertilizer rates were, they thought, fairly in line with other rates on fertilizer, and that they did not oppose the increase in those rates. Personally, I never made any examination of them. They said they were satisfied, and that was all I wanted them to be, so I did not go any further." (Tes. 647-650.)

In my exhibits I have undertaken to show the general adjustment of the interstate and intrastate rates in Tennessee, as at present in effect, and as it will be under the [fol. 539] adjustment now proposed by the carriers. I have shown on my first exhibit the location of the fertilizer factories in the State; they are Nashville, Tennessee, Chattanooga, Tennessee, Knoxville, Memphis and Mount Pleasant, Tennessee.

I will first take up the individual situation of the N. C. & St. L. Railway, because the Nashville, Chattanooga & St. Louis Railway operates the greater distance of any line in Tennessee. Our mileage in Tennessee is 926 miles, and that is greater than the mileage of any other individual line in that State.

My Exhibit No. 221 shows the rates from Nashville, Tennessee to Nashville, Chattanooga & St. Louis Railway agency stations. Prior to the fall of 1899, no specific commodity rates were provided on fertilizer from Nashville to N. C. & St. L. Railway stations. In the fall of 1899 any-quantity commodity rates were established on the Class N

basis. Class N was the lowest class rate that we had over our line. Class N applied on carload shipments at that time, of sand, gravel, lime, brick and other commodities, and we took those Class N rates and applied them on fertilizer, any quantity, from Nashville to N. C. & St. L. stations. Now, rates originally established on this basis have continued in effect until this time, to stations south of Nashville, Tennessee, except that they have been increased under General Order 28 and Ex Parte 74, and reduced 10 per cent, under Docket 13293. From stations west of Nashville, they continued on the basis originally established on this basis have continued in effect until this time, to stations south of Nashville, Tennessee, except that they have been increased under General Order 28 and Ex Parte 74, and reduced 10 per cent, under Docket 13293. From stations west of Nashville, they continued on the basis originally established until April, 1922, when they were reduced under the 1303 revision.

It will be noted that from this exhibit, that we take in a number of cases, substantial reductions in our present rates. For example, to Murfreesboro, Tennessee, from Nashville there is a substantial movement of fertilizer, and the present rate is $1.80. We proposed $1.58. There is a substantial movement from Nashville to Fosterville, and we [fol. 540] reduced the present rate from $2.25 to $1.80; to Tullahoma, Tennessee, there is also a substantial movement, and the present rate will be reduced from $2.59 to $2.14. To our branch line points we have also made reductions, and there is a movement to these branch line points. On the first page is shown the Shelbyville Branch. The present rate from Nashville to Shelbyville, Tennessee, is $2.59; under the proposed scale the rate to Shelbyville will be $2.03. On page 2 is shown the Sequatchie Valley Branch. To Jasper, Tennessee, on this branch, there is a considerable movement, and the rate is reduced from $3.94 to $2.82 per ton. To Pikeville, Tennessee, there is a larger movement than to Jasper, that is a point at the end of the branch. There the rate is reduced from $5.40 per ton to $3.27 per ton.

Now, on our Sparta Branch, and which is a mountain branch, there is a large movement. For example, to Manchester, Tennessee, there is a big movement, and the rate is

reduced from $2.59 to $2.37. Sparta, Tennessee, is practically at the end of the branch, or near the top of the mountain, and there is a substantial movement of fertilizer from Nashville to Sparta, and there the rate is reduced from $3.72 to $2.70.

Our greatest movement from that branch is lumber and coal, but there is some sweet potatoes grown, and some tobacco grown on the Sparta Branch, but I think the fertilizer must be used up there mostly for growing corn.

On page 3 is shown our Huntsville Branch. That branch is a branch which we operate with 20 miles of River transfer between Hobbs Island and Guntersville to Albertsville and Boaz on that branch, south of the Tennessee River there is a substantial movement of fertilizer from Nashville, and the rate is reduced to those points from $3.42 to $3.27.

"Q. Do you propose to apply straight mileage on that branch, or are you going to have constructed mileage for the river crossing?

"A. It depends, Mr. Commissioner, upon what we get from 13494. The present proposal is straight mileage scale."

These rates are figured out on straight mileage. To points on what is known as the Middle Tennessee and Ala-
[fol. 541] bama Branch, abbreviated to read M. T. and A. Branch, there is a substantial movement of fertilizer, and to Taft, Tennessee; for example, the rate was reduced from $3.15 to $2.82. To Capshaw, Alabama, the rate is reduced from $3.15 to $2.93. The next division shown is the W. & A. Division. That is operated as our Atlanta Division, it is the Western & Atlantic Railroad, which is leased from the State of Georgia, and the rates to stations on our Atlanta Division were originally made in competition with the rates from Charleston and Savannah to stations in Georgia, and we have considered those rates on a very low level. There will be some increases, but the increases, as will be noted, are not substantial. (Tes. 650-654.)

Now, it will be noted also that there are increased from Nashville to Chattanooga and Gadsden Group, Huntsville, and Atlanta, Georgia. Now, these are commonly known as junction or common points in the South, and the rates to

these points were originally made in line with the rates from the Ohio River. In fact, Nashville was made a dollar a ton, and the rates from Louisville, Ohio River Combination at that time, was recognized at Nashville, and they were placed on differential basis in line with the Ohio River Crossings, and that provided very low rates from Nashville to these Southeastern Common points. Now, subsequent to the original issuance of these rates, the rates from Ohio River Crossings were increased, but we made no corresponding increase in the rate from Nashville, so Nashville has been depressed under the Ohio River Crossings.

Pages 4 and 5 of my exhibit shows the rates from Nashville to N. C. & St. L. stations west of Nashville, Tennessee. Rates to these stations were reduced under the revision of Docket 1303, the Mississippi Valley revision which Mr. Chadwick explained in some detail yesterday.

My Exhibit No. 222, which I offered in connection with this Mississippi Valley section of my Exhibit 221, shows the rates on fertilizer from Nashville to West Tennessee, that would have been in effect had the revision not been made in 1303, or in other words, the exhibit shows the modern equivalent of the rates in effect prior to the 1303 revision contrasted with the present rates, and also compared with the rates we are now proposing. It will be noted from [fol. 542] this exhibit that we have made some substantial reductions in 1922 in the rates to this territory from Nashville. And that the proposed rates in a number of cases do not even equal the rates that were in effect prior to April, 1922.

The rates that are shown in the first column on that exhibit, being the rates prior to I. & S. 1303 revision are the rates that were in effect at the time when Mr. Henderson made the statement which I quoted a minute ago, before the Tennessee Railroad Commission. And these rates from Nashville to our other stations that I have just pointed out, where we make these reductions, they were also in effect. My Exhibit No. 223 shows the rates from Nashville to stations on lines other than the N. C. & St. L. Railway in Tennessee. The first three pages cover the situation on the Louisville & Nashville Railroad. It will be noted that the changes in the Louisville & Nashville rates are practically the same as those of the N. C. & St. L. Page No. 4 shows

rates from Nashville, Tennessee, to Tennessee Central stations. In this connection, I desire to call attention to the fact that the Tennessee Central Railway has notified the Southern Freight Association that it was their intention to apply the short line scale over its line, and that it would not be their purpose to ask Fourth Section relief in connection with the scale of rates as finally adopted for application between the various points in the Southern Territory.

The Tennessee Central has generally been regarded as a rather weak line. The Commission has given it Fourth Section relief because of its financial condition. It was covered by an order in I. C. C. Docket 9190, the Murfreesboro Case. It appears from page 4 of this exhibit this proposal will be a rather substantial reduction in rates on the Tennessee Central Railroad. I don't know if that road is getting stronger, or whether exceptions are being made in fertilizer. Pages 5 and 6 show the rates from Nashville to Mobile & Ohio Railroad and Illinois Central Railroad stations in West Tennessee. These rates are the result of the Commission's decision in 1303, and represent the Valley revision. This was explained by Mr. Sheppard and Mr. Chadwick yesterday.

Page 7 shows the rates from Nashville to C. N. O. & T. P. Railway stations. It will be noted that there is not a sub-
[fol. 543] stantial change proposed in the rates from Nashville to Cincinnatti, New Orleans & Texas Pacific Railway stations.

Pages 8, 9 and 10 show the rates from Nashville to Southern Railway stations in East Tennessee. These rates have been carried on a very low level. They were originally established the same as from Atlanta, Georgia. Atlanta, Georgia, to Southern Railway stations is a single line haul, and the Nashville, Chattanooga & St. Louis Railway established rates from Nashville to Southern Railway stations for the joint haul the same as published by the Southern Railway for their single line haul from Atlanta, Georgia. These rates have been a matter of complaint for the past 25 years by the Southern Railway. They went so far at one time as to appeal to the Commission to have their line eliminated as a participating carrier in our tariff. But because of a change in traffic officials, and the fact that the Southern Railway entered Nashville at one time with their own line—

they leased the Tennessee Central for awhile—we have been allowed to continue these rates in effect. Now, it is proposed to divide these rates along with the others, and it will be noted that in a number of cases that we are proposing reductions in the rates which have been objectionable to the Southern Railway for this long period of years.

My Exhibit No. 234 shows the rates from Chattanooga to Nashville, Chattanooga & St. Louis Railway stations. This exhibit is substantially the same as the Nashville exhibit, and I don't think it necessary to burden the record with pointing out the different details.

Exhibit No. 225 shows the rates from Chattanooga, Tennessee, to the territory east of Nashville, Tennessee. It is similar to the previous exhibit, and compares present rates on fertilizer with the rates on the proposal scale. (Tes. 654-58.)

Exhibit No. 226 shows the present rates on fertilizer compared with the proposed rates from Memphis, Tennessee, to Nashville, Chattanooga & St. Louis Railway stations. Conditions here are similar to those at Nashville. In other words, to stations west of Nashville the rates are increased because the present rates in that territory reflect the 1303 revision. To stations south of Nashville the rates are reduced. I will state, though, for the information of the Commission, I know of no movement of fertilizer from Memphis to stations on the N. C. & St. L. Railway south of [fol. 544] Nashville. So far as my investigation goes, the movement of fertilizer from Memphis, as far as Tennessee is concerned, is confined to the western portion of the State.

My exhibit No. 227 compares the present rates from Memphis, Tennessee, to points on lines other than the N. C. & St. L. in the Western section of Tennessee, with the rates on the proposed scale. There are a number of increases in these rates because the present rates, as explained before, reflect the Memphis-Southwestern revision or 1303 revision. That I. & S. 1303 readjustment was primarily a Fourth Section realignment of the rates.

My Exhibit 228 compared the rates from Knoxville, Tennessee, to territory east of Nashville with the rates on the proposed basis. There is, so my investigation develops, a substantial movement of fertilizer from Atlanta, Georgia, to Tennessee points, especially on the line of the N. C. &

St. L. Railway, and for that reason I have shown in my Exhibit No. 229 the present and proposed rates on fertilizer from Atlanta to N. C. & St. L. Railway stations. When the fertilizer factories were originally established at Nashville, in order to assist them in establishing their products to the Southeast and cotton sections, the N. C. & St. L. Railway established a low line of rates to Georgia destinations, which were made in line with the rates from South Atlantic Ports to the same destinations, which were, as has been testified here, on a very low level. After we had established these rates from Nashville southbound in order to pacify the Atlanta shippers, or manufacturers of fertilizer, we established northbound to N. C. & St. L. Railway stations from Atlanta practically the same scale that we used in publishing rates from Nashville to Georgia destinations. These rates we have always considered are on a very low level, and it will be noted that in a number of cases substantial reductions are made in the present rates.

On the first page of the exhibit will be noted that the rates from Atlanta to stations intermediate to Chattanooga and Nashville, that the Nashville rate is not exceeded. Now, prior to the revision of the Commission in the Murfreesboro Case, we had higher rates to these intermediate points than to Nashville—Nashville being a depressed point, located on the Cumberland River. Under the Commission's decision in Docket 9190, and the Fourth [fol. 545] Section order issued in connection with the Murfreesboro case, Fourth Section Order 7566, we were denied relief at Nashville against these intermediate points, so in order to escape the violation we reduced the rates to intermediate points, so as to not exceed Nashville. This reduction was made along about 1922, and while it will be noted that the proposed rates do not substantially increase the existing rates from Atlanta.

My Exhibit No. 230 compares the proposed rates on fertilizer with the rates on coal from Clifty, Tennessee, to stations on the N. C. & St. L. Railway intermediate to Clifty, Tennessee, and Memphis, Tennessee. It also shows the per car revenue on coal as contrasted with the per car revenue on fertilizer, the latter on the basis of the proposed scale. It will be noted that in practically every in-

stance that we receive a greater revenue on coal than we would under the proposed fertilizer scale, that is, on this local traffic on the N. C. & St. L. Railway in Tennessee. That is revenue per car.

Taking the Nashville distances to Tennessee destinations, I would not say that coal moves substantially greater distances than fertilizer. Nashville, Tennessee, ships fertilizer all up the Southern Railway, as far as Bristol, Tennessee. It has shipped all over Western Tennessee. The weighted average haul, in my opinion, would be slightly over 100 miles; that is, the weighted average haul in this territory.

We do handle coal over our lines to Georgia points which would be substantially longer hauls. When we begin to get up into the long hauls, the per car earnings begin to be greater on fertilizer, because of the competition that we meet there on coal. In other words, the Western Kentucky—the rates on coal from Western Kentucky mines on the Louisville & Nashville, and the Illinois Central. We have to meet that competitive condition in West Tennessee, and that reduces, or holds down the rates on coal in that territory. (Tes. 658-662.)

Exhibit No. 231 compares the rates and car earnings on crushed stone with the rates and per car earnings on the proposed scale on fertilizers. It will be noted that the per car earnings on stone is only slightly less than the per car earnings on the proposed scale on fertilizer. Now, this [fol. 546] crushed stone is worth about $1.50 f. o. b. the quarries. It is used in Tennessee for road-building purposes, and these rates have been reviewed by the Tennessee Commission and have not been condemned. I could not say that they have been specifically approved, but they have never condemned the measures of these rates on crushed stone. Now, this is not pulverized limestone, to which Mr. Orr called attention this morning with Mr. Drescher. This is stone known as crushed stone, and is used for road-building purposes in Tennessee.

Exhibit No. 232 compares the per car earnings on cement from Nashville, Tennessee, to Nashville, Chattanooga & St. Louis Railway stations, with the per car earnings on fertilizer. In filing this exhibit I wish to call your attention to the fact that the rates I show here on cement from Nash-

ville are the present rates. The carriers are proposing revised rates on cement, and also the shippers have a scale which they are proposing on cement, and in order to remove any question, I have used the present rates under which cement is moving at the present time.

My Exhibit No. 233 is similar to 232 and shows the rates on cement and per car earnings compared with fertilizer, from Richards City, Tennessee. Richards City is a large cement producing point on our line, and ships to stations on the N. C. & St. L. Railway.

Nashville, Tennessee, is quite a large milling point, and there is a very considerable quantity of mill products shipped from that point; flour and wheat.

I have investigated through our superintendents the question of using cars that have been loaded with fertilizer, and it appears to be universally reported that cars once loaded with fertilizer cannot be loaded with any other commodity that would absorb odor within approximately 90 days. That is a car had been loaded with fertilizer, and were loaded with flour within 90 days, that the flour or feed would absorb the odor of the fertilizer, and for that reason the cars once loaded with fertilizer cannot again be used until the odor has been eliminated. This odor, so I am advised, remains in the car after it has been cleaned out, and it is the judgment of our superintendents that at least 90 days is required to rid a car of this odor.

That is the report I get from our superintendents, that they must be very careful to see that no commodities loaded [fol. 547] in sacks or burlap is placed in a car that has been loaded with fertilizer until the sulphuric acid that might have accumulated in the cracks has evaporated, that the sulphuric acid leaks out of the fertilizer, that is, from the burlap or cotton bag. There is no free sulphuric acid in the fertilizer; I understand there is sulphuric acid used in making acid phosphate. The sulphuric acid is used with the phosphate rock to make acid phosphate.

"By Mr. Cotterill:

"Q. Well, was it your impression that the acid phosphate possesses those qualities which Mr. Gwathmey assumed were possessed by acid?

"A. This is the drainage out of the acid phosphate that is loaded into the car, Mr. Cotterill.

"Q. Drainage of what?

"A. The acid, so I am advised by our superintendents.

"Q. Mr. Burke, acid phosphate is a dry material; there is no drainage from acid phosphate. I think perhaps there is a confusion there of some sort." (Tes. 662-665.)

To clear that point, I had an understanding from our operating people, that they recognize that when a car has been loaded with fertilizer, that it cannot safely be used thereafter for the shipment of flour, and meal, and things of that sort, in sacks, for approximately 90 days.

With respect to this matter of minimum weight, and the inclusion of various articles in the fertilizer list as proposed, the statement made by Mr. Ketner in regard to that matter, coincides exactly with our view. That is, we do not wish to commit ourselves to a continuous application of the specific list indefinitely. In other words, conditions may change, and the carriers may want to add some more commodities to the fertilizer list, or some of the commodities should be eliminated from the list. I have particularly in mind the item of cottonseed meal, and as to minimum weights, it is our view that the classification minimum should be used in connection with the fertilizer list. (Tes. 666-667.)

[fol. 548] Cross-examination:

We have not as yet fully determined the rates that will be applied to Tennessee River Landings. There is a movement to the landings on the Tennessee River, but until we have had an opportunity to confer or correspond with the boat lines, we would ask not to put in that statement. Between now and the next hearing we will probably have sufficient time for determining the measure of such rates as we suggest. I will say, that it had been the intention to include in the traffic test the movement to the River Landings.

"Q. In respect to this matter of the subsequent use of cars in which fertilizer has once been loaded, did your informant make distinction whatsoever as between the differ-

ent articles which are loosely called fertilizer? Take, for instance—let us take nitrate of soda, kainit, acid phosphate, a considerable variety of articles in the list, constituting a large part of the total tonnage have no odor at all, have they?

"A. I am not an expert on this odor business. I gave you the source of my information, Mr. Cotterill, that that is the report I obtained from my superintendents on investigation."

I am not familiar with the loading of cyanimid fertilizer material. As far as you know, it does not put any odor in a car.

Judging by the tonnage statements as I have seen, the principal movement in my territory is commercial fertilizer and acid phosphate. I would judge that those are the fertilizers which our operating people have dealt with, from the information I have obtained from the tonnage statement. (Tes: 667-670.)

"By Mr. Cotterill:

"Q. Mr. Burke, what do you understand commercial fertilizer to be, as distinguished from the things that I was enumerating?

"A. I was going by the billing; what is billed as complete fertilizer, and what is billed as acid phosphate, and so on."

[fol. 549] Complete fertilizer is nothing in the world but a mixture of one or the other, or maybe two or three of the articles that I described; put together in a hopper, and mixed up.

I would not be in a position myself to testify that it is only as to tankage, and in rare instances of fish scraps, that there is any odor at all in the movement of fertilizer not of my personal knowledge.

Taking Exhibit 231 here, where I compare crushed stone with fertilizer, the earnings per car: It is, generally, a fact that we load that crushed stone in open top equipment.

"Q. That is around 22 tons dead weight to the car there, of crushed stone, is it not?

"A. I don't know what the dead weight is Mr. Orr, in that."

We have got 45 tons of stone going in there, but as to whether, in our fertilizer, we have got about 18 ton car, I couldn't tell you; I don't know. (Tes. 670-672.)

(Witness excused.)

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J. O. Gill was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

My name is J. O. Gill, and I am employed by the Gulf, Mobile & Northern Railway Company, with headquarters at Mobile, Alabama, as freight traffic manager, which position I have held since 1922, having been connected with the properties prior thereto in the traffic department in various capacities. Prior to coming with these companies I was with the general freight office of the Illinois Central at Memphis. The Birmingham & Northwestern, and the Gulf, Mobile & Northern Railway Companies are here seeking authority to meet the rates at the junction points, and to establish, publish and maintain rates to local stations on these lines 50 cents per ton higher than the rates suggested or established for trunk line application.

I would like to offer at this time a series of seven Exhibits, subject to any objection, of course.

[fol. 550] (The statements were thereupon received in evidence and marked "Respondents' Exhibits Nos. 234 to 240, inclusive, Witness Gill.")

Exhibit 234 is a blue print showing the physical and geographic location of these lines and the territory served, as well as trunk line connections. The Birmingham & Northwestern Railway Company extends from Jackson, Tennessee, in a generally northerly direction, is 49 miles long, and is in competition with strong trunk lines at Jackson, Bells, and Dyersburg. The territory traversed by this line was without railroad transportation. The necessity for such transportation was recognized by the business interests, a company organized and the railroad built in order to serve this local territory. This line is largely dependent

upon the local traffic to make its operating expenses. The Gulf, Mobile & Northern constructed in sections, as lumber roads, but I was dealing here with the Birmingham & Northwestern.

The Gulf, Mobile & Northern extends from Mobile, Alabama, to Jackson, Tennessee, in a general northerly direction, through the States of Alabama, Mississippi, and Tennessee, and traverses a very sparsely settled country, which is generally poorly developed. It competes with strong trunk lines at Mobile, Laurel, New Albany, Ackerman, Meridian, Newton, Houston, Middleton, Tennessee, and Jackson, Tennessee. This line and predecessor companies were built primarily for the purpose of tapping the virgin forests which have been and are being rapidly denuded.

Exhibit No. 235 is a list of junction points reached by the Birmingham & Northwestern Railway, and the Gulf, Mobile & Northern Railroad, arranged in alphabetical and geographical order, each road shown separately. The exhibit also shows lines other than these lines, which reach the said junction points. There is a junction point at approximately an average of every 50 miles.

The Interstate Commerce Commission, upon numerous occasions, as well as the State Railroad Commissions of Alabama, Mississippi and Tennessee, as I shall point out specifically later on, recognize the necessity for relief in connection with rates to and from stations on these lines.

The Birmingham & Northern, and Gulf, Mobile & Northern, as a rule, do not make the rates at the junction points. [fol. 551] That is, they have not in the past. It may be that under a mileage scheme of rates these lines would make the rates from certain Ohio River Crossings to certain junctions, but they are here seeking authority to participate in rates at the junction points made by trunk line applications in cases where these lines do not make the mileage; because, as we will show a little later, they are not in a position financially to operate rates on trunk line basis.

Exhibit 236 is a statement of rates showing the mileages, present rates, rates proposed for trunk line application, as well as rates proposed for these lines, reflecting 50 cents per ton higher than proposed for trunk line application from Ohio River Crossings, Memphis, New Orleans, and certain typical Southeastern points.

Exhibit No. 237 is a statement showing the average revenue per ton mile on fertilizer, as well as per car mile and per car, also revenue per ton mile, per car mile, and per car, and basis proposed rates on fertilizer. The average revenue on all traffic for the year ending 1924, on the Gulf, Mobile & Northern Railroad was 13 mills, the average revenue derived from proposed rates on fertilizer would be 14.8 mills. (Tes. 672-6.)

In some respects it is true that the use of the Third Royster Scale would in many cases produce higher than our present rates, than if no arbitrary of 50 cents were added to the rates that were revised under Docket 1303, or from Ohio River Crossings, also for local application on our line. In view of that fact, we think there is a necessity for adding of the 50-cent arbitrary. The present rates are not exactly satisfactory to us from the Ohio River Crossings, and from the Southeast those rates are higher. Not in all cases, but the rates from Atlanta to Bay Springs, for instance, $4.95, the Royster scale would make $4.95. We did not think we could get enough out of that rate to really pay us, and therefore we are asking for something over the scale in these rates. We are asking for something more than we have now got. The rate is on combination from many Southeastern points. These are merely shown as typical. I might state at that particular point, that we have found it necessary to file a general Fourth Section application under Docket 1303, because of our financial situation, and that has been heard.

[fol. 552] It has been, and is the desire of these lines to operate rates strictly on Fourth Section principles where possible or consistent, but our situation presents such peculiar circumstances as to make special treatment as to Fourth Section relief necessary. It has been estimated that 62 per cent. of the voting population of the State of Mississippi, in which state there are situated 397 miles of the Gulf, Mobile & Northern Railroad, exist within a radius of 15 miles each of this line. The following counties in Mississippi are dependent, or practically so, upon the Gulf, Mobile & Northern Railroad for transportation facilities: George, Perry, Greene, Jasper, Neshoba, Winston, Pontotoc, and Tippa. Populations of these counties are:

| | |
|---|---|
| George County | 5,564 |
| Greene County | 10,430 |
| Perry County | 8,981 |
| Jasper County | 18,508 |
| Neshoba County | 19,303 |
| Winston County | 18,139 |
| Pontotoc County | 15,419 |

In addition to these counties the Gulf, Mobile & Northern Railroad serves to a very large extent the following counties: Jones, Newton, Choctaw, Webster, Chickasaw, and Union Counties, making a total of 14 counties in the State of Mississippi either solely dependent or largely dependent upon the Gulf, Mobile & Northern Railroad for railroad transportation. Thus, it is seen that, although the country is at this time poorly developed from an agricultural and industrial standpoint, aside from products of the forest, the Gulf, Mobile & Northern Railroad is obligated to serve an important territory, the development of which obviously cannot be carried forward without efficient railroad transportation. Products of the forest comprise an average of approximately 65 per cent. of the tonnage of this line. Forests are becoming very rapidly cut out, the lumber manufactured and shipped. Consequently, unless this territory can be developed, this line views with alarm the situation in which it will be when this lumber is gone, unless vast developments are made. These lines have a development department, and are doing everything consistent to develop the territory, but at best the progress is slow [fol. 553] and without money nothing can be done. These lines find it necessary to develop through traffic for reasons which have been shown, and this can be done only by efficient operation. The importance of prompt movement of traffic is of course recognized. Consequently, unless this service is performed, the development of this territory cannot go forward. Anticipating the loss in revenue from forest products, these lines realize the necessity of competing with the strong trunk lines for other traffic. This traffic cannot be secured without efficient service. These lines, as will be pointed out, contemplate improvements that will permit them to adequately serve the public, compete for traf-

fic, and carry out a development program, but which cannot be done without relief. It is of course understood by all concerned, including shippers and receivers, that the differential will accrue solely to these lines.

The average revenue per ton mile on the Gulf, Mobile & Northern Railroad for the year ending December 31st, 1924, was 13 mills, whereas the average revenue on fertilizer, proposed, will yield 14.8 mills. Exhibit 237 is a statement showing present rates, revenue per ton mile, per car mile and per car, as well as revenue per ton per mile, per car mile and per car, basis proposed rates on fertilizer. This statement is representative of the situation.

The Interstate Commerce Commission has heretofore granted these lines relief in view of the unusual circumstances. By application bearing the Interstate Commerce Commission's No. 4948, conditions peculiar to these lines were set forth and conditions have not changed to warrant a strict observance of the Fourth Section, but certain other additional conditions and circumstances now exist that make relief necessary. These circumstances are not only indicated herein, but have been recognized by the Commission on numerous occasions in which relief has been granted. To illustrate: Fourth Section Orders 2531, 2754, 2766, 3866, 4303, 7026, 8843, and 8895. Fourth Section Order 2531 granted Birmingham & Northwestern Railway permission to establish from and to Jackson, Bells, and Dyersburg, Tennessee, the same rates as were currently in effect from and to these points via other lines in cases where the rates from and to Jackson, Bells, and Dyersburg were lower than the rates currently in effect from and to intermediate points. (Tes. 676-680.)

[fol. 554] This Order also authorized the Birmingham & Northwestern Railway to establish and maintain rates from and to local stations bearing reasonable relation to the rates from and to Jackson, Bells and Dyersburg.

Fourth Section Order 2766 granted the Birmingham & Northwestern Railway permission to maintain $1.35 per net ton on coal from Louisville & Nashville Railroad Kentucky mines to Dyersburg, Tennessee, and to establish a rate of $1.75 per ton from the same points to intermediate points on the Birmingham & Northwestern Railway with-

out observing the long-and-short-haul provisions of the Fourth Section.

Fourth Section Order 2754 granted the Gulf, Mobile & Northern Railroad permission to maintain rates from Gulf, Mobile & Northern Railroad stations to Ohio River Crossings and Memphis, Tennessee, when via the gateways of Montgomery, Birmingham and Chattanooga the same as in effect via the direct lines to Ohio River Crossings and Memphis and to exceed these rates to intermediate points the same as the rates from the gateways of Montgomery, Birmingham and Chattanooga to intermediate points exceed the rates to Ohio River Crossings. This Fourth Section Order also granted the Gulf, Mobile & Northern Railroad authority to meet the rates of the strong trunk lines from our junctions to Ohio River Crossings, and to maintain rates to intermediate points between said junctions higher than the rates from said junctions.

Fourth Section Order 4303 granted the Birmingham & Northwestern Railway permission to meet rates of the Illinois Central Railroad, and the Louisville & Nashville Railroad from Dyersburg and Bells, Tennessee, to Cairo, Illinois, on lumber via Jackson and Mobile & Ohio Railroad, and to maintain higher rates from intermediate points provided that the rates from said intermediate points did not exceed more than 3 cents per 100 pounds the rates concurrently in effect from Dyersburg and Bells, Tennessee.

Fourth Section Order 7026 granted the Birmingham & Northwestern Railway and the Gulf, Mobile & Northern Railway permission to meet the rates of their competitors at junction points on class and commodity rates to and from Baltimore and related points, Ohio and Mississippi River Crossings, and related points, and Southern Atlantic [fol. 555] and Gulf Ports and related points, and to maintain higher rates to their intermediate local points on basis of lowest combination provided that the components applicable between points on the complainants' lines used in making such combination should not be increased.

Fourth Section Order No. 8834 granted these lines authority to meet the rates established at the junction points and to charge higher rates at local or intermediate points.

In Memphis Freight Bureau Case, decided July 19th,

1913, reported in 27 I. C. C. 507, the Commission employed the following language:

"The Commission in Stiritz v. M. O. M. & C. R. R. Company, 22 I. C. C. 578, held that since this was a comparatively new line, poorly equipped, and lacking the density of traffic of the older competing lines, it was justified in charging higher rates."

The Commission, in Fourth Section Violation of the Southeastern lines, reported in 30 I. C. C. 161, after reference to a revenue check made by interested carriers, pointed out that a strict application of the long and short-haul clause would result in a deficit to a number of lines, including these lines.

In 32 I. C. C. 79, the Commission made the following statement as to such short or weak lines:

"It is earnestly represented that these several short roads intersecting the main lines are not in a position to observe at their local stations the same scale of rates that is observed by their trunk line connections. The Commission has not had an opportunity to investigate the conditions existing on each of these several short roads. We are of the opinion that they should be authorized to continue to meet at their junction points the rates which are established at such points by their trunk line connections and to continue for two years higher rates to intermediate local stations, provided that the present short roads and the rates of the trunk line junction points on which rates to said intermediate points are made are not increased."

More recently, in Docket 13449, reported in 85 I. C. C., the Commission, upon hearing and determination realized [fol. 556] the situation confronting petitioners' lines and granted certain special relief (Fourth Section Order 8843).

In I. & S. Docket 1885, pertaining to brick and clay products, the Commission authorized for application upon petitioner's lines rates a differential of 3 cents per 100 pounds higher than for trunk lines (Fourth Section Order 8895).

Commissioner Eastman, in his tentative report, Southeastern Class Rate Investigation, Docket 13494, recom-

mended special treatment for account of petitioners' lines, realizing financial conditions and among other things said:

"Certain financially weak carriers of fair size and numerous so-called short lines seek special treatment. The weak lines are these: Birmingham & Northwestern Railway; Gulf, Mobile & Northern Railroad.

"There seems no doubt but that most of these weak lines and short lines find it hard to keep the wolf from the door." (Tes. 680-684.)

The State Commissions of Alabama, Mississippi and Tennessee, have also in the past and do now recognize these lines as requiring special treatment and they have been, are permitted, and do now maintain higher intrastate rates than applicable over trunk lines. This is mentioned merely to illustrate that these lines, — account of location, financial and physical conditions, traffic density, and nature of traffic, cannot afford to operate rates in effect on strong trunk lines.

Exhibit No. 238 is a comparative statement showing average miles operated, gross revenue per mile of road, gross expenses per mile of road, freight traffic density, net ton miles per mile of road, for the Gulf, Mobile & Northern Railroad, Alabama & Vicksburg Railway, Illinois Central Railroad, and New Orleans & Northeastern Railroad, for the period of 1910 to 1921, inclusive, and the same information for the Gulf, Mobile & Northern Railroad for 1922 and 1923. The exhibit further and clearly portrays the weakness of the Gulf, Mobile & Northern Railroad as compared with certain of its connections and competitors, and we believe will fully justify the Commission in granting the [fol. 557] authority to us to publish and maintain higher rates than strong trunk lines. It will be seen that the gross revenue per mile of road on the Gulf, Mobile & Northern Railroad was substantially one-third of the gross revenue on the Alabama & Vicksburg Railroad and Illinois Central Railroad, and approximately one-fourth of that of the New Orleans & Northeastern Railroad and this is substantially true as to freight traffic density.

Exhibit No. 239 is a statement showing condensed comparative income account for the years 1914 to 1924, inclusive. This statement shows a deficit for the years 1914,

1915, 1916, and 1919. While it is true that this statements shows a surplus for the years 1917, 1918, 1920, 1921, 1922, 1923 and 1924, this company has never paid a dividend, except a total of 7¼ per cent. on its preferred stock only.

There is at this time $22.75 per share due preferred stockholders in accumulated dividends. The preferred stock is an exchange for old New Orleans, Mobile & Chicago Railroad first mortgage bonds, so really the preferred stockholders are the former bond owners, who have received only the dividends mentioned. All surplus, except the inconsequential dividends mentioned, is put back into the property for necessary additions, betterments, locomotives, equipment, etc. Since this line came out of receivership January 1st, 1917, it has expended for additions, betterments and extensions approximately $6,708,573.90. There are no bonds outstanding against the property, therefore no interest of consequence charged to income. Thus the financial disability or difficulty is emphasized. This company's financial difficulty has been of long duration, having gone through two receiverships. While conditions for 1923 and 1924 were more favorable, enabling the property by efficient operation and economical management to pay a portion of its dividends under abnormal traffic conditions, business moving freely throughout the country as a whole, the fact remains that this property has a very heavy maintenance expense. To illustrate, in the next five years contemplated maintenance of equipment and roadway expenditures are in amount $11,319,200.00, or $2,263,840.00 per year which is the lowest the management feels should be expended in the interest of efficient operation and eco-
[fol. 558] nomical management, that it may adequately serve the public dependent upon it. During the year 1924 our maintenance expenditures were approximately $1,963,127.00, making a difference of $300,713.00 per year for the next five years, which must be raised from earnings.

Our Company filed returns with the Commission under the Recapture Clause of the Transportation Act of 1920; these returns have been filed for the last four months of 1920, for the years 1921, 1922, 1923, and will be filed for the year 1924. There is filed herewith as Exhibit No. 240 copy of the returns already filed and a copy of the returns that will be filed for the year 1924. These returns do not show

that our Company earned the 5¾ return on investment permitted by the Transportation Act before recapture. The rate of return for four months 1920 was 5 per cent.; 1921, 4 per cent.; 1922, 3.2 per cent.; 1923, 3.4 per cent.; and 1924, 4.3 per cent.; or an average rate for this period of 2.4 per cent.

These returns were based on our investment as represented by the books of the Company. However, we have received our tentative valuation from the valuation section of the Commission, and this valuation based on 1914 prices properly equated in accordance with recent decisions of the Interstate Commerce Commission do not differ materially from our book figures. (Tes. 684-88.)

Cross-examination.

By Mr. Moore:

"Q. Mr. Gill, you do not show the proposed rates from Gulfport, Mississippi, or Mobile, Alabama, to stations on your line. Do you propose to apply from those points the Royster scale plus 50 cents per ton?

"A. What you — asking to do, Mr. Moore, is to apply the scale that is adopted on fertilizer for trunk line application, plus 50 cents?

That may be something higher or something else than the Royster Scale. Wherever I have used rates here, I have used the Royster scale.

[fol. 559] I don't know what per cent. of our fertilizer traffic is intrastate. The intrastate must be greater, because of the proximity and the low rates we have. However, there is a very substantial movement, for example, from Nashville, Birmingham and Memphis to our stations. The intrastate movements are, as a rule, short distance movements.

I should judge our average would be less than 100 miles. These proposed rates would bring about some very material increases in our intrastate rates. In most cases it would bring about increases in our present rates, anyway, without the 50 cents that we propose in the interstate, as well as the intrastate.

During the past five years, there has been a very substantial increase in the net earnings of our road. We are not

now approximating the 5¾ per cent. We have made improvements. We realize the necessity for further improvements. You will observe from my Exhibit 240 that we have filed in this record copies of the returns made to the Interstate Commerce Commission under the capitalization clause. The average of that, I believe—I can give you the average in just a second—the average for the period, 5 years, was 2.4 per cent.

Page 4, 1919, shows one-half of one per cent.

For 1923 it appears to be $1,302,000.00, and for 1924, $1,463,000.00. That shows a very substantial improvement over 1919, that is true. That shows a very substantial improvement. (Tes. 688-690.)

"Q. Now, then, Mr. Gill, referring to your statement about the disposition of the timber supply along your road. In a hearing conducted in Mobile recently on your Fourth Section application, didn't you file an exhibit showing the per cent. of forest products reflected in your total tonnage for a period of something like 10 or 12 years?

A. I did; yes, sir; and the average was the figure that I mentioned at this particular hearing."

I don't know how much difference there was between the average of the first half of that period, and the average of the latter half of that period; it was very small, but I am not sure about it. There has been a very substantial increase in the movement of tonnage over your road, not only of forest products, but every other commodity. We would like to see [fol. 560] it continue, but there is no possibility of it continuing, that is why we are developing through traffic. Wherever there has been timber cut out and plants abandoned, in many cases new ones have not been established; for instance, I have in mind a place there at Rose, I do not know whether you know where it is, just north of Tate Springs; two tremendous plants that were in operation there, and there is nothing there today but skeletons. There is not anything shipped from there except a little waste wood, that goes into these reduction plants. Despite the cutting out of the timber and abandonment of plants, our timber, forest products, continue to increase; they are cutting out now faster than they ever did. As to how the rates from, say New Orleans, to stations on our road on fertilizer are now divided; I have not the basis in my mind, even. We

have various arrangements with our connections, that are based on certain reciprocal arrangements. I will say, for your information, however, that any relief accorded us in fertilizer rates is to accrue solely to us; if that is what you have in mind. If 50 cents per ton is allowed to our line over the rates that may be established by the Commission, that 50 cents will accrue to our line, and wherever rates today are accorded us we will get the relief. (Tes. 690-693.)

(Witness excused.)

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J. F. DALTON was thereupon duly sworn as a witness and testified as follows:

Direct examination:

(Statement:) My name is J. F. Dalton, and I am General Freight Agent of the Norfolk-Southern Railroad.

I have had about twenty off years' railroad experience, approximately sixteen of which has been with the traffic department of the Norfolk-Southern Railroad. Of the sixteen years connected with the Norfolk-Southern Railroad, I have been a general officer of the traffic department for approximately fourteen years.

The Norfolk-Southern Railroad's interest in this investigation lies very largely in the movement of fertilizers within the states of Virginia and North Carolina, both in- [fol. 561] trastate and interstate. Of the total mileage of the Norfolk-Southern Railroad, that is 932 miles, all of same is located within the state of North Carolina, with the exception of 115 miles, which is located in the State of Virginia, and which mileage is very largely made up of branch lines.

Mr. Menzies, I believe, in his testimony in dealing with the North Carolina, or the Carolina, rate situation, covered in a general way the history of the rate adjustment within the state of North Carolina, beginning with about 1891 up to the present time, as has been well covered by the Commission's report in the third Royster case, 50 I. C. C., the present rates, or rather the basic scale of rates, within that State, is a result of the findings of the special commission appointed by the governor in the early part of 1914, I think,

to conduct an investigation dealing with the reasonableness of rates passed by an Act of the legislature of the State of North Carolina. As a result of its extensive hearings and consideration the special commission made a report of its findings to the governor, and those findings were promulgated as the Justice freight rate scales, and which included fertilizers.

That scale promulgated by the governor became effective on October 13, 1914, and provided for a mileage scale, single- and joint-line, the latter being 20 cents per ton at that time higher than the single line scale. This scale—or those scales, rather, were applicable to all trunk lines of 75 miles or more in length, and which included the lines of the Norfolk-Southern Railroad within the State of North Carolina. Under the law the State regulatory authorities of North Carolina could not assume jurisdiction in so far as lowering or raising the rates of the State of North Carolina until at the expiration of six months subsequent to the promulgation or the effectiveness of the rates. Soon after the State Corporation Commission assumed custody of the rate situation within the State of North Carolina, the Norfolk-Southern Railroad made representations to the governor of North Carolina—I should have said of the State Commission—that the rates were unreasonable and sought to increase the rates previously prescribed and known as the Justice scale. (Tes. 700-702.)

[fol. 562] The same rates do not apply interstate. The rates interstate are those fixed by the Commission in the third Royster case, and in the second and third cases, certainly the third Royster case, the Norfolk-Southern Railroad attempted to prevail upon the Interstate Commerce Commission to grant it a scale of rates approximately ten per cent. higher than what the Commission fixed for the other three defendants in the Royster case. However Commissioner Hall, in the third case, 50 I. C. C., called attention in his dissenting report to the inadequacy of the Commission in promulgating rates in the third Royster case while not fixing the differential adjustment for the lines of the Norfolk-Southern.

I have referred to interstate, having in mind the rates from Norfolk into North Carolina, and which scale also now applies interstate within the State of North Carolina, and from Charleston, South Carolina into the State of

North Carolina. Our intrastate rates now are higher than our interstate rates. They are for distances, single-line for 95 miles, and under, and for joint-hauls all distances higher.

With the permission of the Commissioner at this point I would like to introduce a series of exhibits, which I have prepared, dealing with the issues in this case. The first exhibit has been numbered 241, which I understand was the next number following the close of the hearing in Atlanta in April. 241 to 276 inclusive.

(There being no objection, the documents referred to were thereupon received in evidence, and marked "Respondents' Exhibits 241 to 276, inclusive, witness Dalton.")

The exhibit 241 is a map outlining the territory served by the Norfolk-Southern Railroad. On this map I have indicated by a reference mark star the location of fertilizer plants of one description or another on the lines of the Norfolk-Southern Railroad. It will be observed that the plants are in a number of cases a very short distance apart.

The exhibit 242 is a statement showing the points as well as the character of fertilizer plants located on the lines of the Norfolk-Southern Railroad.

Exhibit 243 is a statement of the present rates on fertilizer carload single-line application as now effective be-
[fol. 563] tween points in North Carolina intrastate as well as between points in Virginia intrastate, and also the scale as effective interstate between points in North Carolina or Virginia, or vice versa. However that scale does not apply to or from Norfolk, Virginia, because the Royster scale as prescribed by the Commission is applicable from that point. It would, however, apply from a point such as Elizabeth City or Hertford, North Carolina, located immediately south of the Virginia-North Carolina state line, on a shipment destined to a point in Virginia. (Tes. 702-705.)

That scale was not prescribed by the Commission, and it is very proper to state that the movement under that scale is not very great. However, it would apply on such shipments as might be handled from those North Carolina factories to points on our line in Virginia. The scale would not apply from Suffolk. There are specific rates from Suffolk, Virginia, to destinations on the line of the Norfolk-Southern Railroad, which, for some distance, I think up to

about 90 or 100 miles, where the rates exceed the Royster scale, applicable from Norfolk, and for distances over 90 miles, my recollection is that the scale is about the same as the Royster scale.

The exhibit 244 is a comparison of the rates intrastate in North Carolina as effective prior to the Justice scale, viz. October 13, 1914, which scale has been plussed the two general increases and minused the ten per cent. reduction, as contrasted with the proposed scale for single-line application of the Norfolk-Southern Railroad.

That is different from the scale which the other carriers are proposing. That scale is universally ten per cent. higher than the scale proposed by the other trunk lines. It will be noted that in some cases the old scale as shown in the first column of the exhibit 244, which was in effect from 1891 to 1914, plus these increases, and ten per cent. reduction, in some cases, is the same, and in others under, and still in other cases over the scale which we are proposing.

Exhibit 245 is the old North Carolina intrastate scale effective prior to the Justice scale plus the two general increases and the ten per cent. reduction, as compared with the present North Carolina intrastate joint scale, and the proposed joint scale of the Norfolk-Southern. There it will be noted that the old scales, or rather the old basis, shown [fol. 564] under column A, which, prior to October 13, 1914, was the local mileage scale of each line, subject to 25 per cent statutory deduction of the State. In other words, there were no joint-line mileage scales, but the local scale of each line less 25 per cent was used in making joint-haul rates between trunk lines 75 miles or more in length. That basis is contrasted with the existing joint scale and that which we are proposing in this case for joint-haul application.

Exhibit 246 is excerpts from transcript of testimony in I. C. C. Docket 7573, which I believe is the third Royster case, 50 I. C. C. Mr. Calloway, as referred to in this exhibit, was the attorney for the lines defendant to the case other than the Norfolk-Southern. Mr. Womble, as mentioned in the exhibit, is the rate expert of the North Carolina Commission, and Mr. Travis at that time was Chairman of the North Carolina State Corporation Commission.

Exhibit 247 is a copy of rate authority No. 1233 of April 12, 1921, of the Virginia State Corporation Commission

dealing with the intrastate rates of the Norfolk Southern Railroad. It will there be observed that the Virginia Commission authorized, after publication of newspaper notices, but without a public hearing, a scale of rates for the Norfolk-Southern Railroad generally higher than the scale now proposed for single-line application over the lines of the Norfolk-Southern. We are proposing that scale for both intrastate and interstate application; provided we can secure that scale, it is our purpose to apply it universally. As has already been stated all lines of the Norfolk-Southern are located in the States of Virginia and North Carolina, and the two State Commissions have authorized the Norfolk-Southern Railroad to charge generally a higher level of rates than the Royster scale. In the traffic test which the carriers have been making, we used our proposed scale; I have an exhibit which I will deal with later touching upon that.

Exhibit 248 is a comparison of the present joint-haul scales between points in North Carolina and the proposed joint-haul scales of the Norfolk-Southern Railroad. The joint-haul scale was made as much higher than the proposed single-line scale of the Norfolk-Southern as the Royster joint-line scale is higher than the Royster single-line scale. [fol. 565] Exhibit 249 is a comparison of the present rates of the Norfolk-Southern intrastate North Carolina single-line with the proposed joint scale.

Exhibit 250 is a statement showing the proposed rates of the Norfolk-Southern Railroad as contrasted with the 6th class rates from Norfolk, Virginia, to North Carolina points for corresponding distances, and the percentage which the proposed rates bear to the Sixth class rates from Norfolk, Virginia, to the destinations indicated in the exhibit.

The Southern Railway provides for Sixth class rate on fertilizers in the absence of specific commodity rates. The exhibit shows that the rates in many cases are as low as 39 per cent—that is the proposed commodity rates are as low as 39 per cent. of the going Sixth class rates. (Tes. 705-708.)

As to how we arrive at our joint scale: after making the single-line scale ten per cent. higher than the Royster single-line scale, I then found the difference existing in the present Royster single-line and Royster joint scale,

and added that difference to our proposed single-line scale.

Exhibit 251 is similar to Exhibit 250, except it deals with the intrastate rates in Virginia.

And exhibit 252 is the same as exhibit 250, except that it compares the North Carolina intrastate sixth class rates with the proposed rates on fertilizer, and shows the percentage of such proposed rates to the existing sixth class rates.

Exhibit 253 is a comparison of the rates as effective from Norfolk, Virginia, to stations on the Chesapeake & Ohio Railway as compared with the proposed Norfolk-Southern scale.

The exhibit shows both the C. & O. intrastate and interstate scales.

Exhibit 254 is a comparison of the proposed Norfolk-Southern single-line scale with the rates from Norfolk, Virginia, to stations on the Pennsylvania Railroad, and single-line haul, both interstate and intrastate.

In connection with that exhibit it will develop upon investigation that in January, February, and March the Pennsylvania Railroad handled to local stations on its line between 2700 and 2800 cars of fertilizer, and that the bulk of same moved from Norfolk, Virginia, Baltimore, [fol. 566] Maryland, Salisbury, Maryland, Princess Anne and Crisfield, Maryland, and some from Eastern cities.

Exhibit 255 is a comparison of the rates between Pennsylvania Railroad Stations, N. Y. S. & N. division, both intrastate and interstate, compared with the scales as proposed by the Norfolk-Southern.

Exhibit 256 is a comparison of the rates proposed by the Norfolk-Southern with the rates from Baltimore, Maryland, to stations on the Pennsylvania Railroad, both representing single-line hauls. Baltimore, as is well known, is a very large and important shipping point for fertilizer. That exhibit consists of two pages.

Exhibit 257 is similar to 256, except it makes the comparison with the rates on fertilizer from Baltimore and to stations on the Baltimore & Ohio.

Exhibit 258 is similar to 256, except it makes the comparison with the rates from Baltimore to stations on the Western Maryland.

Exhibit 259 is a comparison of the proposed rates with those applicable for single-line application between stations on the New York, New Haven & Hartford Railroad. My investigation with the New Haven road developed that there is some movement under the rates of the New Haven road, but we were unable to get any statistics as to the volume of it.

Exhibit 260 is a comparison of the Norfolk-Southern's proposed scale with that applicable in C. F. A. territory under the three different zone basis.

In our study of this case we have been anxious to develop as far as possible the causes which influenced and determined the consumption of fertilizers within the states of Virginia and North Carolina, and in order to arrive at some definite idea and secure some complete and full information of a positive character as near as possible, we sought to obtain same from the United States Department of Agriculture, as well as the Department of Agriculture and Immigration of Virginia, and the North Carolina Department of Agriculture.

Exhibit 261 contains letters from the United States Department of Agriculture, Bureau of Soils, expressing views as to the causes which lead to the consumption of fertilizer; the original of that letter I believe is attached to the set of [fol. 567] exhibits handed to the Commissioner. This exhibit also contains a letter from Commissioner Koiner of the Department of Agriculture and Immigration of Virginia, and also letter from the North Carolina Department of Agriculture.

After securing that information we undertook to develop information relating to the acreage, production, and market values as well as the consumption of fertilizer, and we were forced to reach the conclusion that there is quite a cor-elation between farm values and production crops and the consumption of fertilizer.

As is well known the chief industries of North Carolina, I think, is cotton and tobacco, and in Virginia, *and in Virginia*, possibly tobacco. There is not as much cotton grown in the State of Virginia, in fact not anything like as much as is produced in the State of North Carolina.

On this exhibit I have also indicated the freight rates as in effect during the months of March and April of the years indicated for certain representative distances.

Exhibit 262 shows the acreage, production, and the farm price as of December 1st, cotton and tobacco, for the State of Virginia. (Tes. 708-712.)

Exhibit 263 shows separately the same information as to cotton and late tobacco for the State of North Carolina.

Exhibit 264 is a statement separately of Virginia and North Carolina of cotton, showing the acreage, production, consumption of fertilizer, and the rates on fertilizer for representative distances.

The purpose of these exhibits is to show that there is a very close relation in the farm values of cotton and tobacco and the consumption of fertilizer. For example, it will be noted that, taking the state of North Carolina as shown on Exhibit 264, that the farm price of cotton December 1, 1919, was 35.2 per pound, which was materially higher than the price of cotton for any previous year. As a result of that the year of 1920 there was a material increase in the consumption of fertilizer. The price obtained from cotton, or rather the price on the farm of December 1, 1920, and during that period had a bumper crop, the price of cotton tumbled from 35.2 in 1919 to 14.5 per pound in 1920. The following year, 1921, the price of cotton was somewhat better than in 1920, but the movement of fertilizer which took place in the spring was materially less, having dropped in [fol. 568] 1920 from 1,221,796 tons to 695,000. Now in 1921 the price was better than 1920, and there developed an increase in the fertilizer consumption of 1922. Going a step further it will be observed from the same exhibit that in the year of 1922 the price of cotton was 24.5 per pound as compared with the previous year of 16.4, so there again it appears that the fertilizer consumption went from 936,000 tons in 1922—the fertilizer consumption in 1922—went from 936,000 tons, in round figures, to 1,081,000 in 1923. What I am trying to prove by these exhibits in other words, is what the Department of Agriculture of North Carolina told us in one sentence—that when the farmers are hard up they buy little, and when they are prosperous they buy liberally, and that their prosperity and liberality seems to depend very largely upon the prices obtained for these chief crops.

"By Mr. Roberts:

"Q. That don't fit as far as Virginia is concerned in 1923 and 1922, does it?

"A. Probably be a little better on tobacco in Virginia, which is the principal crop, more so than cotton is in Virginia."

The consumption of fertilizer does not depend upon the particular acreage. That fertilizer consumption means a total consumption for the state as used on all crops. I think it is generally recognized that cotton and tobacco are the chief crops, or the chief industry of the State, and in Virgina, I suppose from an agricultural standpoint, that tobacco is. There is materially less cotton grown in Virginia than tobacco, however the fertilizer consumption is that consumption for all kinds of crops, and not necessarily cotton and tobacco. However, it does not show that with the trend of the farm prices, that the consumption has generally gone along with it. This acreage, though, does refer to the acreage, but not the consumption of fertilizer, which is the total consumption of the State.

Exhibit 265 is a similar statement, showing separately by states the same information as to leaf tobacco.

Exhibit 266 is a statement separately by states, showing the combined acreage of cotton and leaf tobacco. That is, taking the total acreage of cotton and tobacco in Virginia and combining them.

[fol. 569] Exhibit 267 is statement of combined cotton and leaf tobacco for the states of Virgina and North Carolina; the farm price, the production, and the freight rates for representative distances in North Carolina and Virginia intrastate, and also from Norfolk to various points in North Carolina for representative hauls.

Now Exhibit 268 is a similar statement to 264, except that it deals with the acreage and production of hay for the states of Virginia and North Carolina separately.

Exhibit 269 is a similar statement for corn.

It will be noted that from exhibits 268 and 269 that the consumption generally of fertilizer followed more nearly the trend of the prices of cotton and tobacco than it did corn and hay.

Exhibit 270 is a statement showing the movement of fertilizer locally between stations where the entire transportation took place on the line of the Norfolk-Southern for the months of March and April, 19[illegible]. Those months, based upon 1924, represented about 58 per cent. of the total fertilizer movement for the year 1924. That is, that the fertilizer for cotton and tobacco generally takes place during the early part of the year, and that has a great deal to do with the tonnage handled. Now we have taken the abstracts covering each carload shipment, and rerated it on basis of our proposed single-line scale, and it shows an increase in revenue of 2.56. Now it will be recalled that we are proposing a scale ten per cent. higher than the single-line Royster scale, but the reason why this increase in revenue is not as much as ten per cent. is due to the fact, as has already been indicated, that within the State of North Carolina we have generally scales of rates that are higher than the Royster scale, on the Norfolk-Southern.

In other words for single-line application for 95 miles and under our present scale is higher than the Royster single-line scale, and at 100 miles our present scale single-line is the same as the Royster single-line scale. About 90 per cent. of the 1937 cars of this total of 2124 shown on this exhibit moved for distances 95 miles and under. The average haul is approximately 38 miles, and by reference to exhibit 241, it will be observed there that the lines of the Norfolk-Southern Railroad have quite a number of fertilizer establishments on them. (Tes. 712-716.

[fol. 570] Now exhibit 271 is a statement showing the movement of fertilizer segregated by the three different groups as outlined in connection with the general traffic test, separated as between North Carolina intrastate, North Carolina interstate, and North Carolina interterritorially. That covers shipments coming from points north of the Ohio River or west of the Mississippi and moving via Atlanta or Paint Rock gateways, or the Virginia Cities, rerated on the basis of the Royster scale. The movement, however, is infinitesimally small. It also shows the movement in connection with the short lines intrastate and interstate. It might be said, that in so far as this interstate movement is concerned, that it is generally a movement

from Norfolk, Virginia. You will recall, Mr. Commissioner, that in one of the Royster cases, that reference was made to the fact that a very substantial and large volume of the fertilizer produced at that point was shipped into the state of North Carolina. Now the statement, however, reflects tonnage where the Norfolk-Southern Railroad is the delivering carrier, as well as, of course, its local traffic, but I have separated from the previous exhibit the local traffic. The percentage increase under the proposal of the Norfolk-Southern is 5.9.

I would like to say this, that I have made some further analysis as to the distribution of the total fertilizer movement of the Norfolk-Southern Railroad for the months of March and April, 1925; and I find that 61.2 per cent. of the total tonnage represented North Carolina intrastate movements, and in Virginia intrastate 2.03 per cent., and interstate, including the movement from the Ohio River and Mississipp. River crossings 36.77, making a grand total of 100 per cent. Of the 61.2 per cent. represented in the North Carolina intrastate tonnage, a large part of it, or rather it includes 27.79 of the total of all tonnage as single-line movement. Now of that total 100 per cent. of all tonnage, 27.79 single-line movement, 90 per cent. or approximately 24 per cent. of the total movement moved for distances single-line 95 miles and under.

Exhibit 272 is a comparison of operating income, accounting traffic statistics Class I Railroads, Southern Region, for the years 1922 and 1923, as compared with the Norfolk-Southern Railroad for the same years. Now [fol. 571] the years 1922 and 1923 were taken, Mr. Commissioner, because we had this data already prepared previously in connection with another case when this fertilizer investigation was started. When later statistics, however, are desired, of course we will be glad to supply them.

Exhibit 273 is a statement showing the results of operation of the Norfolk-Southern Railroad for the years 1920 to 1924 inclusive, which shows the average performance including the rate of return for the five years. It will be noted that the rate of return as shown in this exhibit is 2.24. However, as you know, Mr. Commissioner, the Commission, I believe has fixed the valuation of the Norfolk-Southern

Railroad lines as of June 30, 1914, and applying the standards of the Bureau of Labor of the Commission, would bring the valuation for rate-making purposes in excess of that shown in this exhibit. Valuation Docket No. 31.

"Q. What do you mean by applying the standards of the Bureau of Labor of the Commission?

"A. Well, perhaps I can better explain that, if you will permit me to read just a paragraph from our Chief Engineer's letter to me bearing on that exhibit.

"Q. What you mean, you have equated that value for the increase in wages and materials?

"A. That is it, materials and labor."

I didn't mean to intimate at all that the Commission had yet decided that that was the proper thing to be done. That the Commission had recognized that as a going thing, but which seems to be the opinion of our Chief Engineer from his dealing with the valuation proposition, that it is a sound thing to do. I don't mean to say that the Commission has approved it in that form.

Now Exhibit 274 is a comparison of the present rates of the Carolina Railroad, and the Kinston Carolina Railroad, as compared with the rates of the Dover & Southbound Railroad, and some short lines operating in the same general territory; and further, a comparison of the existing Carolina, and Kinston Carolina rates with fifty per cent. higher than the Royster scale. The North Carolina Corporation Commission after receipt of application and consideration, fixed the rates on these two short line railroads approximately fifty per cent. higher than the Royster scale, and [fol. 572] fifty per cent. higher than the Royster scale is now proposed for these short lines. In fact there is so little difference—I haven't worked it out to see which way it goes—between fifty per cent. higher basis over the Royster scale, and the present rates, that these lines would be content, I think, with the existing scale. I represent those lines. We don't so regard them as being operated as a part and parcel of the Norfolk-Southern Railroad for the purposes of Section 15 (a) of the Act. These lines are so poor that they are not even able to employ a traffic representative. I happen to perform the functions for those lines. (Tes. 716-720.)

The stock is owned by the Norfolk-Southern Railroad. They were practically abandoned at one time, and the Norfolk-Southern Railroad has been operating them more or less as a public benefactor, but for the purposes of 15 (a) of the Transportation Act these lines have not been treated as a part of the Norfolk-Southern system, but as separate entities altogether.

It shows on this map here, the line of Pink Hill, and Snow Hill. That is the Carolina line out to Snow Hill, and the Kinston & Carolina to Pink Hill. However, there are other maps that we have got that show them entirely foreign, in as much so as the Southern or Coast Line is to the Norfolk-Southern.

Exhibit 275 is a statement of the operations of the Carolina Railroad for the years 1922, 1923, and 1924. In 1924 there was a deficit of $416.72.

Exhibit 276 is a comparison of the operations of the Kinston-Carolina for the years 1922, 1923, and 1924, and which for all three years showed a deficit.

In connection with the general freedom of movement of the fertilizer traffic, the records of the Norfolk-Southern Railroad show that for the period of January 1st to August 31st, inclusive, 1925, the Norfolk-Southern handled 12,403 cars loaded with fertilizer, and in 1924 for the same period 10,983 cars loaded with fertilizer, or an increase in round figures of 13 per cent. of 1925 over the period mentioned of 1924. Taking the entire calendar year of 1924 the Norfolk Southern handled 11,689 cars, whereas for the period of eight months mentioned in 1925 it handled 12,403 cars of fertilizer.

[fol. 573] I am unable to give you the average loading of the cars for 1925, but taking the total cars handled in 1924, and the total fertilizer tonnage, and which embraces carload as well as L. C. L., the average loading was about 19 tons per car, and that, applied to your 1925 movement, assuming that the average loading will be the same for 1925 as 1924, there will be an increase in the fertilizer tonnage of 1925 in North Carolina. Taking the years of 1920 to 1924, inclusive, the average revenue per annum from fertilizer traffic as earned by the Norfolk-Southern is $392,855.00 or approximately in round figures $400,000.00. So, if you reduce the rates of the Norfolk-Southern Railroad on fertilizer ten per cent., that is $40,000.00, or twenty per cent,

$80,000.00, without any compensatin gains or ways to recoup that loss to the Norfolk-Southern Railroad. It is operating in a territory where the records shown that there has been and is a substantial movement from year to year, and the fact that in other territories there may have existed lower rates, and which has not accrued to the advantage of the carrier, but my mind would not be a very proper way to say that the level of the rates in the Carolinas should come down. Our information as to the fertilizer traffic to the Carolinas shows that there is certainly freedom of movement. If you undertake on a weighted average of the territory of the South as a whole, to fix the rates in the Carolinas in my judgment that is not going to help to increase the flow of the fertilizer traffic in the Carolinas, but were it possible for any human body to fix the price, the market values of the basic crops, that one thing would be a great boon to the fertilizer consumption. I wanted to make clear to you that the Norfolk-Southern has no way of recouping any loss on fertilizer in the Carolinas that may flow from any average of rates or weighted revenue statistics, taking the South as a whole, so it seems to me that what we are proposing here of a ten per cent. higher than the basic scale, and which scale moves a very large volume of fertilizer, does not seem an unreasonable proposition. The transportation machine of the Norfolk-Southern Railroad is of certainly some concern and some value to the communities which it serves. The Norfolk-Southern Railroad certainly would not be in the position, or certainly it would not be calculated to increase and bring about improved service [fol. 574] with any depletion of its net income, especially in view of the showing which it is now, or has made since the termination of Federal control.

As to whether our rates are influenced in any way by competition with the other railroads: I am glad you mentioned that. I wanted to say that they are influenced and controlled in so far as there is direct rail competition between the lines or routes of the Norfolk-Southern versus the lines or routes of other carriers. For example, assuming that the Norfolk-Southern Railroad obtained a ten per cent. higher scale than the Royster scale from Norfolk to Wilson, North Carolina, or to Raleigh, North Carolina, or to Goldsboro, and even Charlotte, it still then would be required

to meet whatever scale of rates that you fixed for the other lines. Now aside from being controlled by that direct rail transportation there is such a thing as "cross-country" competition, and that seems to prevail to a considerable degree in the handling of fertilizer, that being one commodity that the farmer will handle by motor truck or by horse and wagon.

I recall in that connection a movement of fertilizer to Kinston, North Carolina, from Norfolk, where the farmer sent out to that point and drayed it for a distance of about 12 or 15 miles to various localities in Green County, Snow Hill, which I believe is the county seat. And I recall also in that connection the cross-country competition existing in the movement of fertilizer to a station known as Murray, North Carolina versus Snow Hill where fertilizer shipped to Murray, North Carolina, and then carted over to Snow Hill. (Tes. 720-724.)

Why we have been somewhat in doubt as to asking for a higher basis than ten per cent. over the other lines for these reasons, that the two state commissions have recognized generally the ten per cent. basis. Now I believe that we could possibly, considering your cross-country competition, charge maybe more than ten per cent., but we were faced with this situation of the State commission to regulate the charges on a very substantial part of our traffic, having conceded the propriety and fixed the policy of giving us that level of rates, we felt that in this proceeding the safe thing to do was to propose it also interstate.

[fol. 575] "Q. Could you use the ten per cent. scale without Fourth Section relief at competitive points?

"A. Without Fourth Section Relief. That is correct. And of course, Mr. Commissioner, we would desire Fourth Section relief so as to meet the rates at the competitive points.

"Q. That is what I meant."

Mr. Beeman, the Secretary of the Eastern Carolina Wholesale Dealers and Manufacturers Association had intended to testify at the April Atlanta hearing respecting the attitude of his association, bearing on the proposal of the Norfolk-Southern. He is not here, and in fact I understand Mr. Beeman is now in Florida, but with your permis-

sion I would like to read about three paragraphs of a letter from Mr. Beeman addressed to Mr. Loyal our President under date of April 15, 1925.

This communication is from the Secretary-Traffic Manager of the Eastern Carolina Wholesale Dealers and Manufacturers Association, dated Wilson, North Carolina, April 15, 1925, addressed to Mr. George L. Loyal, President of the Norfolk-Southern Railroad, Norfolk, Virginia. I don't know where their factories are located. They have a membership consisting of wholesale dealers and manufacturers of the State—that is the eastern part of North Carolina. I notice here, Mr. Bosley that Mr. Ed Meritas (?) of Newbern, North Carolina, that operate as you possibly know a fertilizer factory at Newbern is on the transportation committee.

"Com. Eastman: Do you object to this letter, Mr. Bosley?

"Mr. Bosley: Mr. Commissioner, I don't think that letter is competent or proper here. We have no chance to cross-examine.

"Com. Eastman: Well, you object, do you?

"Mr. Bosley: Yes, sir.

"Com. Eastman: Your objection is sustained."

I have made some investigation, Mr. Commissioner as to the necessity of inspecting equipment once loaded with fertilizer traffic before being utilized again for the loading of merchandise traffic, and our agent at Norfolk advises me that it is quite frequently the case that empty cars are [fol. 576] placed in Berkley slips for loading with merchandise, crude stuff, etc., that have previously been loaded with fertilizer, and even though the car is thoroughly swept out and cleaned, the odor is so offensive that the car cannot be used in merchandise slips, and it is necessary to throw the same out and request other cars from the yard department. Our experience has been that it requires some time for these cars to be sufficiently aired after the same have been loaded with some brands of fertilizer, or fish scrap, before the same can be again placed in merchandise service.

I also made some investigation of this particular situation with our superintendent of transportation, and in doing so his experience had been somewhat similar to that of our Norfolk agency. Perhaps a little more extensive, because he called attention to a claim of approximately $1,-

400.00 for damage to a carload of sugar. The car was loaded with Peruvian guano on March 3rd, and relieved of such load on March 11th, it being under load eight days. The car passed inspection for merchandise loading on March 23rd, and was on that day, 12 days after being relieved from the guano load, loaded with sugar. The car was free from odor or residue. On arrival of the sugar at destination, only four days in transit, the sugar was so saturated with fertilizer odor that it was unfit for human consumption, and the net result was that the sugar had to be returned to the sugar refinery for working through the refinery process. It shows further that this is a concrete example of what confronts the car equipment situation at the fertilizer season, as a result of the commodity contaminating cars, making them unfit for the time being of many other commodities. Now, if it is deemed necessary I will be glad to have Mr. Dugan, our superintendent of transportation, come here to testify more specifically on the experience of our operating people in using cars for merchandise traffic that were previously loaded with fertilizer. (Tes. 724-27.)

"The Witness: I shall be very happy, Mr. Commissioner, to have Mr. Dugan's testimony along that line, or whatever lines he wishes to along this particular phase of the matter, and I am wondering that if it would be in order as a matter of convenience to Mr. Dugan, to let him testify just previous to the carriers' rebuttal.

[fol. 577] "Com. Eastman: Yes, I think that could be done. I suggest that you take this up with counsel for the other lines and perhaps the whole question of the contamination of cars will be covered by one or two witnesses. You did have a witness on that subject Mr. Gwathmey at the previous hearing." (Tes. 728-9.)

I overlooked when introducing the exhibits to file another exhibit which I had prepared yesterday and was numbered 247½, and with your permission I will now offer that in evidence.

(The statement referred to was thereupon received in evidence and marked "Respondents' Exhibit No. 247½, Witness Dalton.")

Exhibit 247½ shows the comparison of the rates as in effect in North Carolina from 1891 to 1914 with the various Royster scales, and the North Carolina legislative scale, and the proposed scale of the Norfolk-Southern for single-line application. The rates as shown under column A have all been plussed the increases, and minused the ten per cent reduction so as to bring them down to the level of the existing rates had they remained in effect.

"Q. The 'Justice Scale' was that so named because of its character, or was it named for an individual?

"A. Well frankly I always thought it was a misnomer. It was named after the representative as I recall that introduced the bill in the legislature." (Tes. 729-730.)

Cross-examination:

As to the practice of the Norfolk-Southern Railroad to properly clean cars that are tendered to shippers after loading fertilizer, for loading as merchandise cars: Why, it is my understanding that as to the loading of box-car equipment for merchandise traffic where it is loaded by the Norfolk-Southern Railroad, or with any character of traffic that is susceptible of damage from the odor, that the cars are cleaned by the Norfolk-Southern Railroad. Now as to a car tendered to a shipper for loading on his private siding, I am not positive what the practice is, but Mr. Dugan [fol. 578] will also touch upon that phase of it. On Exhibit 270, I show the average weight per car 46,109 pounds. That average includes materials; everything that took the fertilizer rate. It includes fertilizer materials that moved at lower than the fertilizer rate too. This average haul of 38 miles is on intrastate traffic. That includes materials as well as complete fertilizer. I testified that our average load per car including less-carload shipments was 19 tons; that means all fertilizer that we handled. All fertilizer that moved, less-carload as well as carload, 19 tons.

On Exhibit 271, I show the present and proposed revenues on state and interstate movements of vegetables cake meal and hulls on cars which moved over our line to destinations on our line. The proposed revenue is based on our proposed fertilizer scale.

Exhibit 242 refers to 30 dry-mixing plants located on our line. I have no information regarding the materials used

by these dry-mixers in preparing their fertilizers. That is a result of the investigation which we conducted through our agencies located at the points where the plants are located, and based upon the information which such plants in turn gave to our agent located at the point where the plan-s are located. I don't know from my general knowledge that some of those dry-mixing plants use cotton-seed meal in some instances in preparing their fertilizers; I cannot say one way or the other.

It seems to be the impression of our operating department, that a car loaded with fertilizer, irrespective of its brand, must undergo this certain kind of inspection. Now, unless that is done—is apt to bring about a greater degree of damage to other freight than now exists, and which is avoided by this inspection system which is now in effect. I referred to commercial fertilizers. Well inspection is done, whether it is material, or complete commercial fertilizer. Cottonseed meal as you well know is used both for feed and also by fertilizer plants.

"Q. Then would you say that in transporting cottonseed meal, when used for an ingredient of feed, would not contaminate the car?

"A. I could not say definitely." (Tes. 730-734.)

[fol. 579] I don't know whether cottonseed meal may or may not contaminate a car.

The question of the supposed damage to the car is by reason of some possible odor. There are lots of other articles besides fertilizer that have odors.

"Q. You haven't commented on those have you?

"A. No, I cannot recall any, but I expect there are."

By Mr. Young:

Mr. Dalton, you made comment in connection with certain exhibits showing the relation of prices of the previous fall crop to the consumption in the following year or spring, the way in which consumption was affected by the prices. Do you feel that the carriers should have increased rates on fertilizer in your case asking ten per cent. above that which was asked by the trunk lines, and expect the farmer to carry the full amount of the gamble as to what the prices

will be that he will get for his product. In other words, through the increase in the freight rates, because the farmer would have to carry that much additional investment, and any speculation as to what he will be able to procure for his products?

"A. Why, I think it is a fair proposition, Mr. Young."

I think it exists in numerous cases that empty cars have to be supplied to these various fertilizer plants to take care of the outbound movement. I could not say if that transportation conditions does exist in regard to the movement of cottonseed meal, but based upon the experience of our operating department, that it hardly would exist as to cottonseed meal. This situation that you mention occurs more generally in the early part of the year where fertilizer is moved as was the case the last season in a short space of time, and the general flow of the inbound traffic was not sufficient as to create a supply of empties for the outbound movement of fertilizer from that point.

I could not say that the cottonseed oil mills have a greater receipt of loaded cars than they have in shipment of outbound cars in season, having in mind the large cottonseed movement to the mills; that may be true.

[fol. 580] I recall that during the last year particularly at Norfolk we had to bring in the empty trains, that is trains with empty cars, northbound for equipment to take care of the southbound movement of fertilizer from Norfolk. I really could not say how often we did that, but Mr. Dugan, our superintendent of transportation who will testify regarding this fertilizer odor, will be in a position to give more detailed and comprehensive information bearing upon that point.

I realize, of course, that most of the fertilizer plants at Norfolk are on the belt line. Of the movement of fertilizer from Norfolk, I think it is a safe assertion that no less than 90 per cent. of it comes from the belt line. I am speaking more particularly now of the fertilizer movement from Norfolk. That is a safe assertion, that of the total movement from Norfolk not less than 90 per cent. of it comes over the belt line, possibly 95, and I also know that we do run trains loaded with empty cars and did this past season

to Norfolk to bring empties for the loading of outbound fertilizer from Norfolk. Now, as to whether or not all of those cars which we brought from the South northbound to Norfolk went to the belt line, or what part of them, I could not say.

I could not say what portion of the cars that are used for fertilizer loaded at belt line plants are made empty by the belt. I imagine that there would be quite a number of cars going to industries on the belt line with a load, that we would secure a supply of equipment for the outbound loading of fertilizer. I have made no investigation concerning materials during the fertilizer shipping season the fertilizer industries are taking in.

We have a great deal of lumber, cotton, and tobacco into Norfolk; particularly cotton, and tobacco, not so much lumber.

"By Mr. McGehee:

"Q. Not quite so much tobacco, at the present time?
"A. No, tobacco at Newport News, principally."

We have a plant on our line, Mr. Dashiell, that stores about 18,000 hogsheads of tobacco. (Tes. 734-738.)
[fol. 581] As to what we do with the cars that are made empty from lumber loading, and cotton loading, and from tobacco loading: I think the cars that come in with tobacco and cotton generally come in from September 1st onward until say March or April, that is the heavy movement. Tobacco is a commodity that moves very nearly all the year round. The season for your South Carolina tobacco opens in July, and North Carolina I think it is August. Now there is, as you say, the Imperial Tobacco Company that has an 18,000 hogshead storage plant on our line, and aside from that some movement of tobacco, but those cars made empty as a result of those inbound loads come generally at the season of the year when the fertilizer movement is not the heaviest and the demand the greatest for equipment. The heaviest movement is in March and April. That is with the Norfolk-Southern system as a whole. As I said, approximately 58 per cent of the fertilizer traffic handled by the Norfolk-Southern Railroad takes place, or did in 1924, during the months of March and April.

Our tobacco movement is not over at the end of March, but it is not as brisk, generally.

We have steamers up there pretty nearly all the year around—steamers for export and coast-wise. Why of course there are steamers that come to the port of Norfolk the year 'round, but my recent investigation of the tobacco situation, as I recall it in connection with I. & S. Docket 2386, showed that the bulk of the movement or the brisk movement took place generally about November and December. There is a considerable fertilizer movement from Norfolk from January 1st to March 31st. There is a considerable movement during the months of January and February, but of course it is not anything like as great a movement as that which takes place during the months of March and April, because, as I have said, our investigation showed that for the months of March and April, that approximately 58 per cent of the total fertilizer tonnage moved during those two months.

Lumber, as you know, is a rather irregular thing at this time, and has been for the past several years. Ordinarily with the opening of the spring season along the North Atlantic coast it created a demand for lumber, and therefore the movement in volume was generally increased during [fol. 582] the early part of the year, so as to be on hand for the job of construction during the spring season, which I believe is recognized as a building or construction operation period.

"Q. Well now, your lumber and cotton—tobacco shipments originate at the same points to which fertilizer moves from Norfolk does not it? The same cars that move fertilizer from Norfolk to points in North Carolina would be available and are available in fact for this return movement of cotton, tobacco and lumber; isn't that a fact?

"A. Oh, to an extent that exists, yes, but as I have pointed out, that your movement of tobacco, for example into Norfolk, and your cotton too, does not create a sufficiently even flow of north and south-bound movements so that your loaded equipment on tobacco gives you an adequate supply for your fertilizer, particularly during the rush season, and as a consequence we must run empty equipment northbound to take care of this fertilizer traffic, particularly during the months of March and April."

With the cars that come into Norfolk loaded with the commodities that we mentioned, together with the cars that are made empty at the fertilizer plants, bringing in fertilizer materials, I would not think that a very considerable part of the car supply is solved in that way.

I haven't investigated that feature, but just upon general knowledge I would not think so. It contributed naturally to some degree, Mr. Dashiell, but not to any great extent, I don't think. I haven't made any investigation of it. (Tes. 738-741.)

(Witness excused.)

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JOHN A. STREYER was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

I am connected with the American Shortline Railway Association as traffic manager. I appear on behalf of members of the association, short line railroads in the South.

[fol. 583] (Certain statements were thereupon received in evidence and marked "Respondents' Exhibits Nos. 277 to 287 inclusive, Witness Streyer.")

Subsequent to the order of the general investigation of fertilizers, a questionnaire was sent to the various short lines in the South, members of this Association, and it developed that between 85 and 95 per cent. of the fertilizer traffic was joint traffic, and that 20 to 25 per cent. is interstate, and the remainder being intrastate.

It has further developed by the replies received from this questionnaire, that with one single exception had there been any complaint as to the rates on fertilizer by the patrons of these short lines; further there has been hearings and investigations in the various states, especially in North and South Carolina and in Georgia, and the receivers or the farmers that use fertilizers were not represented to any great extent. In fact, I cannot recall at the present time of an individual farmer or user of fertilizer being represented at any of these hearings. However, as to the Alabama hearing, the organization represented by Mr. Caskie was represented. In the states of Georgia, Ala-

bama, North and South Carolina, fertilizer is one of the leading commodities handled by the short line railroads. Lumber, naval stores, cotton, and its products and fertilizer, in certain parts of Kentucky and Tennessee coal, comprise the larger part of their commodity tonnage. In the other states not mentioned the tonnage is of some movement, but not to the extent as in the states just mentioned. At the present time, the rates on fertilizers on interstate joint hauls from and to points on short line railroads are as a rule made upon combination basis. The intrastate rates are made on combinations less percentages varying in the different states with the exception of the State of Alabama, in which there is a joint-line scale. In the State of Georgia there is no percentage deduction, they are full combination. Generally speaking, the single-line rates applicable over these short lines are higher than the Royster scale. This scale is entirely too low for application over these short lines, especially as it relates to joint traffic. Georgia and Alabama are the only two states, generally speaking, that the single-line scale is less than the Royster scale. There are exceptions in one or two instances, say in [fol. 584] Mississippi for a distance of 15 or 20 miles, the rates are a few cents less than the North Carolina scale or the Royster scale.

Exhibit No. 277 is a comparison of rates on fertilizers. Column A—Georgia scale over trunk and short lines; Column B, North Carolina Scale over trunk lines; Column C, North Carolina scale over short lines; Column D, the Royster scale.

Exhibit No. 278, rates on fertilizers single-line in Tennessee, applicable over both trunk and short lines.

Exhibit No. 279 is joint rates over trunk and short lines in Tennessee for certain distances as shown.

Exhibit No. 280 is single line scale applicable over both short and trunk lines in Florida.

Exhibit No. 281 shows rates applicable over single-line haul for short lines in Kentucky, using as an illustration the Cumberland and Manchester Railway.

Exhibit No. 282 shows the rates submitted to the Alabama Public Service Commission pursuant to its citation September 21, 1921, Docket 4136, less 10 per cent. In this connection this same scale was submitted to the Georgia

Commission in their hearing on class and commodity rates in 1921.

Exhibit No. 283 is a comparative statement of rates on fertilizers, carloads, for joint hauls between trunk- and short-lines in Georgia, North Carolina and Alabama. Column A representing Georgia rates; Column B North Carolina rates; and Column C Alabama rates.

Exhibit No. 284 is single line rates applicable over short lines in South Carolina, with the exceptions of Blue Ridge Railway, C. M. & C., Raleigh & Charleston, Chesterfield & Lancaster, Columbia, Newberry & Laurins.

A study of these exhibits will demonstrate that with one or two exceptions, that the rates applicable over short lines by joint and single hauls are higher than the Third Royster scale. It also demonstrates the exceedingly low level of the present rates in Alabama and Georgia, so far as the rates for single-line haul are concerned, and further to call the attention of the Commission to the proposals of the short lines in Georgia and Alabama in their investigation in 1921-22, General Revision in freight rates showing that these short lines at that time felt that the rates on fer-
[fol. 585] tilizers were entirely too low within those states and that the fair rate should be something higher than the present third Royster scale.

The Alabama Commission issued an order under Docket 4436, under date of May 26, 1924, in which they prescribed an extremely low scale of rates applicable in that state. These were issued under protest by the carriers, effective July 25, 1924. Subsequently, the Georgia Commission issued an order in which they prescribed rates over all the carriers in Georgia, that were even lower than the Alabama scale, and which was enjoined in the United States court, and later were withdrawn by the Georgia Public Service Commission.

The short lines in the South are facing this proposition, that is the rates ordered in by this Commission in line with the proposal of the trunk lines are as low as the third Royster Scale, and on account of competition with the trunk lines, they feel they should be allowed an arbitrary over this scale, a minimum of at least 50 cents, and if the trunk lines proposal is granted, or perchance there should be a lower scale prescribed on any of the short lines within

the Southern States, it would cause a loss in revenue, as has already been shown, a majority of the tonnage is joint line traffic and even with the arbitrary, it will be a severe loss on one of the leading commodities; therefore, these short lines request that in consideration of the rates to be applied for application within the South, so far as it affects these short lines that this be born- in mind, that should the Royster scale plus as low an arbitrary as 50 cents, or lower, be prescribed, it will probably be necessary that the lines in most of the states come to the Commission, following their suggestion in their statement in Docket 17000 for a reallocation in any losses of their revenue on this particular commodity. (Tes. 742-747.)

Since 1921, there has been a persistent effort on the part of the fertilizer interests to secure a general reduction in the rates on fertilizers. Before this investigation began they had appeared before the State commissions of the larger fertilizer-consuming states, and in 1922 appeared before this Honorable Commission when it was considering the question of reducing rates.

[fol. 586] In I. C. C. 68 on pages 676, 719, which was decided on May 16, 1922, it was shown that the fertilizer interests in the Southern States appeared before the Commission requesting reductions ranging from 20 to 25 per cent on fertilizer and fertilizer material. The scale submitted would have involved, the Commission estimated, a reduction of 22 per cent from the scale known as the Royster scale. The Commission refused to grant the petition of the manufacturers in this instant, and it is a recognized fact that the economic conditions in 1922 were a great deal worse so far as the farmer is concerned, than they are today, and if there was no necessity for a reduction in 1922, there is no reason, in our opinion, for any reduction in rates on this commodity within the South today. If general reports are true, the fertilizer interests have just passed through a very prosperous season, and while they may like the rest of the country have passed through the period of depression, they are no different from many other industries throughout the South, especially is this true of the short-line railroads.

Again at this time I desire to make this statement: the short line railroads in the South as a whole are doing

everything in their power to foster the agricultural interest, and if they felt that reduction in the fertilizer rates would benefit the farmers to any degree, they would join the shippers in asking that the reduction be made.

The handling of the fertilizer traffic in the South is peculiar within itself. First it must be handled in large volumes in a given period. It cannot be spread out over a fairly wide period and when any movement is condensed in a short period, in such large volume as commercial fertilizer requires, it is more expensive than ordinarily when traffic moves along during intervals of 12 months. In many cases, the facilities are not available to take care of extraordinary movement at a given period, at origin or destination. Another feature is that 75 per cent of the total movement to small sidings is fertilizer and it very frequently happens that these sidings cannot accom-odate the shipments on the days that they arrive and hence the carriers are forced to hold the cars out until other cars are released, thereby incurring extra expense of setting out of the train, later picking up the cars, the [fol. 587] cars setting on the siding, and later have an additional per diem accruing. The delivery of fertilizer is as a rule a slow process to these small sidings. Also in connection with the short line railroads, frequently they have sidings that will accommodate business for the ordinary business any time during the year, but during the time of the commercial fertilizer movement, I speak of the movement to the farmer that is the time that it all happens within sometimes two or three months and it again causes congestion, and the railroads do not feel that they are authorized to extend those sidings for a short period to carry the fertilizer movement, many of them have not the money or the material with which to make the extensions.

None of our short-line railroads are owned by fertilizer companies that I know of.

"By Mr. Burr:

"Q. How about the C. H. & N.?

"A. I beg your pardon. They are owned by the Baileys, but I don't know just what interest Bailey has in the A. A. C. Company. My understanding is that they have sold

the greater part of their interest, and that the Baileys did not have control.

"By Mr. Aldredge:

"Q. How about the Muscle Shoals, Birmingham & Pensacola?

"A. I don't know who owns this. The fertilizer railroad is purchasing now, that is provided the Commission will approve the sale." (Tes. 747-750.)

The farmer has to haul the fertilizer a greater distanec than the average haul of commodities received at various stations. In some states and on some railroads, the demurrage time is extended for farmers living beyond certain distances.

Now in Georgia on certain short lines, lines that were not under Federal control, a farmer living at a distance beyond five miles, the railroads cannot collect any demurrage from him, and certainly the short line railroads, unless they bring it to the attention of the Georgia Commis- [fol. 588] sion, and have them to pass upon the case. This is not true of any other commodities and from the answers received from the questionnaire sent to these short lines, the investigation made develops that the average per diem on fertilizer is one and a half more days per diem than on any other commodity. The preponderance of the fertilizer traffic handled by these short lines is consigned to these farmers direct. This Honorable Commission is advised that the condition of the short lines in the South and while there has been an improvement in their situation, yet many of them are not able to meet the requirements in the way of necessary equipment, motive power, etc., and they do not feel that they are in any position nor should they be called upon to participate in any decrease in rates on a commodity so vital to them as the movement of fertilizers.

From Exhibit No. 285 it will be noted that for 65 of the important short lines in the South, that the rate of return was 1.525 per cent standard return on the investment, and the net income of these railroads shows a loss of 2.704 per cent. It might be well to ask ourselves a question, that if a reduction in the fertilizer rates, one of the leading commodities handled by these short lines, is made, what would

these figures be which are now distressingly alarming, and as the Commission well recognizes, and have been since 1918. It might be of interest to quote an answer to one of the questionnaires made by the Alabama, Florida & Gulf, a short line railroad leading from Alabama to Florida:

"Fertilizer rates in Alabama were reduced since last season. If the farmer has received any benefit from it, we have not heard of it. The rate from Dothan to the last station on our line in Alabama is $1.71 per ton, the rate from Dothan to the first station on our line in Florida is $2.37 per ton; the difference in the rate is 66 cents per ton and the difference in distance is 2 miles. The Alabama farmer is paying the same price as is paid by the Florida farmer."

The short line railroads do not feel that there should be prescribed for application within the South a lower scale than the Third Royster scale, and as far as applicable over these railroads, the scale plus a minimum of 50 cents, they [fol. 589] would rather prefer to continue the present rates made as at present upon combination basis, restoring the Alabama rates to the combination basis, than having a joint scale prescribed. But in the event that a joint scale is prescribed, we respectfully insist that it should not be more than the Third Royster scale, plus a minimum of 50 cents per ton.

It will be in my opinion, and the short lines feel they could not go higher than 50 cents per ton, for the reason that fertilizer is one of the commodities that is affected most seriously by cross-country competition. As an illustration the trunk line railroad and the short-line railroad may be ten miles apart. The farmer could live half way between the two, or probably nearer the trunk-line railroad, but he does his banking and all of his business at the station on the short line railroad, and he goes to that station ordinarily; but now, when fertilizers, when he purchases fertilizer fertilizer is sold delivered, and he goes to the fertilizer man, and he can get the shipment to the station the same distance, then he asks him this question. "Well, can't you haul from over there, because it is a saving in freight rates to the man there," because we have got to guard against that, or we would probably have asked for a dollar a ton. We figured out, just a rough estimate, that

75 cents per ton would probably make us whole. (Tes. 750-752.)

I ask this for all of the railroads that I represent; this statement here gives you an idea as to their conditions.

The Aberdeen & Rock Fish has an operating ratio of 69. The Durham-Southern has an operating ratio of 64.

In 1923 that company had a net railway operating income of $51,000, in 1924, $1,893—the Aberdeen & Rock Fish. I know one thing that they had crop failures on their railroad last year. I was over there, and they had crop failures there.

I am asking for special treatment of the Dover & Southbound. I am asking for special treatment for that because 95 per cent of their tonnage, or probably more is lumber. Now, when the lumber is cut out, why the Dover Southbound Railroad won't be able to operate unless they can accumulate some little money to go on.

[fol. 590] The Tampa & Gulf Coast, earned almost ten per cent; they earned that because they happened to be a part of a through line of the Seaboard Air Line. I don't know whether the Seaboard owns all of the stock or not; they are controlled by them. I want them treated as a short line.

It is operated not by the officers of the Seaboard entirely. They have a separate superintendent. I would not say it is operated by the Seaboard Air Line. It is not operated separately from the Seaboard Air Line, and some of the officials of the Seaboard Air Line are officials of the Tampa & Gulf Coast Railroad. (Tes. 753-755.)

I don't know of any of those that are owned by industries, but they may be owned by the same interests. Now for instance I have in mind the Hampton & Branchville Railroad, which has been before this Commission. That is owned by the Lightsey brothers, who own the Lightsey Bros. Lumber Company, or something like that, but it is entirely separate, and the lumber company is not putting up any money for the railroad. They lost $3,279.80. Now the lumber company in that connection—the only thing the lumber company is doing is helping to give that section of the country railroad facilities.

"Q. Well, can you give a supplemental statement showing how many of these companies are either controlled by

or affiliated with some industry which ships over their lines?

"A. Well, I could name some of them; probably some of them I don't know myself, because I have not been through the history of all of the railroads. I am going by the official showing of these railroads."

The Kentucky & Tennessee Railroad is a railroad in Kentucky. It is not owned by the coal people, but the same people that have an interest in the coal mines there also have an interest in the Kentucky-Tennessee Railroad. I understand they have also some stockholders on the outside. Now in that connection you will find the Live Oak Perry & Gulf Railroad, in which you will find report the Commission denied them special treatment, because they said it was owned by the Atlantic Coast Line Railroad. Now as a matter of fact the Atlantic Coast Line Railroad does not [fol. 591] own the railroad. They own a majority of the stock, and it is a very small majority. It is not anything like 75, it is around a little over 50 per cent.

"Q. It is shown on the folder as part of the system.

"A. I cannot help that, because I went over a list of the stockholders no longer than yesterday. We found a widow in Chicago owns 900 shares of it; a widow in Savannah 250 shares of it; another widow in Savannah 200 shares of it."

We have got some orphans too, and I will tell you they have not earned a dollar on their money. They have gotten two dividends of four per cent. for investment in about 15 years. Now as to this particular railroad, here is the situation they are confronted with. Their president in a statement before the Senate committee, investigating committee, last year, made the statement, that in his opinion that the railroad would have to ask for a certificate of abandonment in the next five years. Within the next six months their two largest saw mills will be out, and about 95 per cent. of their tonnage is lumber.

"By Mr. Tench:

"Q. You were speaking about two mills, what mills are those?

"A. Mr. Hopkins probably knows.

"Q. They tell me they have twenty years' supply?

"A. I have that from Mr. Hopkins, their Traffic Manager." (Tes. 756-57.)

Before lunch we were discussing Exhibit 285, and particularly that portion of it, of certain lines that were owned by industries or controlled by standard lines, and I want to follow that statement up and show the Commission just the effect of an industry road, and what happened.

The Valdosta, Moultrie & Western is a railroad about 35 miles long, operated between Valdosta, Georgia, and Moultrie. That railroad was owned by the people who owned the lumber. When the timber was cut out the road was operated for about two years and lost money, and the amount of loss was so great that the owners would not put up any more money, and the railroad was put in the hands [fol. 592] of a receiver. The road was sold at receiver's sale, and bought by the identical owners who had owned it before. We made application to your Commission to have it abandoned, and it was abandoned. Now the effect of that in that territory, 35 miles, Moultrie to Valdosta, Georgia, to be exact, I think it is 37, at my request Mr. W. C. Vereen of Moultrie, Georgia, who is President of one of the banks, the president of the cotton mill, a stockholder in the short line railroad, and also a stockholder in other interests at Moultrie, Georgia, made an investigation as to the effect of the abandonment of that railroad upon the territory served by it. And Mr. Vereen reported to me that the land values five miles beyond Moultrie, and seven miles outside of Valdosta, that within five miles each side of that railroad had decreased in value fifty per cent. The farther away you got from each side of the railroad; nearer to other railroads the land value decreased less. Now on that railroad the principal town was a town called Berlin. It had 15 stores a band, and two cotton gins, and all that was left there last year, or what happened between 1920 when the road was authorized to be abandoned was this, that the bank failed, the two cotton gins had gone out of business, and there is one store there.

Now I am telling you this, because I am acquainted with it, and did my best to try to get them to continue to operate

the railroad. That was the first railroad of any consequence abandoned in Georgia—short-line railroad. In interviewing some people about getting some money to buy it at receiver's sale, they said, "We can handle our traffic by truck in this very town of Berlin." They started the automobile truck line. I personally have seen as many as five trucks loaded in Valdosta, Georgia, myself with merchandise. Now, that has happened. That was a railroad owned by the same people that owned the saw mills.

Now, let us take another situation. The Macon & Birmingham Railroad. I was once in its employ, and at that time it was owned by the same parties that owned the Southern Railway at that time. I don't know exactly the connection between the Macon & Birmingham and the Southern Railway. The Macon & Birmingham operated until two years ago. I know that they had to put up money each year that I was with it, and the reports that [fol. 593] I have examined since indicate that somebody has to put up money. That railroad is 97 miles long. Two years ago it ceased operation upon order of the court; because it was unsafe. It is standing there today, not a train has run over the road in two years. There are 1,500 carloads of peaches along that railroad; there is one cotton mill at Thomaston, Georgia, served exclusively by that railroad. There are other industries that were served by it, and these people have been for two years up against the proposition of hauling their peaches for a distance of from one to 15 miles.

Now I am telling you this because it seems to be in your mind the fact, that because if I have an interest in the Seaboard Air Line Railroad, for instance, and I also own some stock in one of these lines, that they should not receive the special treatment, regardless of the situation. Now there is the Macon & Birmingham that I was just telling you about. Two years ago a gentleman was in my office that had raised in subscription $230,000.00, and had asked me—he was in there two weeks ago—and asked me to see a certain trunk line to see if they would take the railroad and operate it, provided they bought the railroad and gave it to them, and the trunk line railroad said to

me, the official that I talked to, that they were not interested. (Tes. 757-760.)

Now if you think that these people—they will pay him double—They will pay 100 per cent. upon the rates effective in Georgia today.

Now, I want to call your attention to another railroad in Georgia that I happen to know about, that is owned by one gentleman that is also president of the Georgia Car & Locomotive Works. The Green County Railroad has been putting up money for it for years. It has made some money in the last two years, but all of the money they can make for the next ten years will not make 5¾ per cent lent by that man for the money he has put into that railroad.

Now, a reference was made to the Tampa & Gulf Coast Railroad here. Today they owe the Seaboard Air Line Railway some money that the Seaboard Air Line has advanced to them, over $400,000.00. They had to do that to give the people transportation. Now, I know something [fol. 594] about the Tampa & Gulf Coast Railroad, before the Seaboard Air Line advanced the money. The Tampa & Gulf Coast Railroad, you could hardly get a train over it without a derailment. The president of the Tampa & Gulf Coast Railroad at that time was a personal acquaintance of mine. I know this situation, and in raising the money, they had to get the money through certain people who had an interest in the Seaboard Air Line Railway, to furnish the money. And so, that is the history of the thing. I say that there is no more reason for a higher scale of rates for the Tampa & Gulf Coast than on a branch of the Seaboard Air Line, that runs off from it. If I am a stockholder in the Tampa & Gulf Coast, I am entitled to a fair return upon that investment; you have got to handle that as a separate entity regardless. If I was the only stockholder in the Tampa & Gulf Coast Railroad, and if the Seaboard Air Line owned the balance of the stock, 99 per cent., yet I this one stockholder, am entitled to a fair return upon my investment in that railroad. I should certainly determine very carefully the relations between that line and the Seaboard Air Line to find out whether or not the Seaboard was treating it right, giving it proper treatment, and so on, and I think that practically any one else would do it. Any business man would do it that is operat-

ing a railroad. I happen to have been an operating officer of a railroad in which the Seaboard Air Line Railroad owned 46 per cent. of the stock, and I want to tell you, the Seaboard Air Line Railway came across so far as I was concerned, and the stockholders, the people were taken care of. I think every operating officer would do the same thing. So, I bring those facts before you.

Now, there is another point. Now, many of these railroads in which the trunk lines, or the trunk lines have an interest, the farmers have an interest. And I can name you those, some of them. And, if this Commission takes this view of the case, a trunk line railroad, or those connected with a trunk line railroad have the management or the operation of a short line railroad, to a certain degree that they are not entitled to preferential treatment, and not treat them on the merits of the thing, then I want to [fol. 595] tell you that there will be a lot of short line railroads in this country that, in my opinion, will have to cease operation, unless they want to put up the money. (Tes. 760-62.)

"Q. They will have to get a certificate unless they do.

"A. The Macon & Birmingham has not got one yet, and they have not run a train in two years, Mr. Commissioner."

I don't know that they were controlled practically by the Southern Railway at that time. I can say this, I can abandon pretty nearly any railroad in the South, and not go to you until it is over. All I can do is to run it as receiver, and go to the court to give me some money, and if he cannot, go to you, it is gone. There are a number of branch lines directly owned by trunk lines that are exactly as bad, and make as bad a showing, as these short line railroads I have got here, if they were incorporated separately, but now that is a horse of another color. If I buy something and put it into my house, why then I am responsible for it, that is the company. But then, on the other hand, if I simply invest my money in a railroad, because I am the principal owner of a trunk line, and want to give these people service over here, I put my money over there, and go and say to this trunk line, "I want you to help me look after that"; I think I am entitled to a fair return, and this is what is happening."

"Q. All a prosperous railroad like the Atlantic Coast Line would need to do if it wanted to abandon a branch line, would be to incorporate it separately, turn over the property to a separate corporation, and then give two shares of stock to some outside individual?

"A. Well, the Atlantic Coast Line, I do not know whether they would want to do that or not, but it might be possible."

I do not know if the Southern Railway gives away the stock. If they did, I did not know it.

But the point I am trying to drive home to you is this. That this country needs transportation. These roads have been built out into the agricultural country. That is what we have got. Now, if you do not allow them enough to operate on, why, the answer is that we won't have many of the short line railroads.

[fol. 596] Now, you cannot help but recall the financial statement that I had in 13494. I wanted to say to you this very frankly, that those railroads were all lost practically at that time, but there has been some marvelous operation on the part of some of these short-line railroads. They have gone ahead, and they have improved their track; their business has increased some; not only that, but they have cut down their operation. Now, if there is going to be a penalty attached to that kind of operation, then there is no room for initiative there at all.

"By Com. Eastman:

"Q. You have not any complaint, the way the short lines have been handled in the final decision of 13494, Mr. Streyer?

"A. Mr. Eastman, as to the adjustment of the local stations, we cannot take any exceptions, but all I am saying to you is this, the point that you have in your mind, that you have said, and wanted to know what railroad is owned by the various industries. Really, there are none of them that I know of, but I say they are probably owned by people who have some amount of stock. Then, following your thought that apparently you had in your mind, that there was some doubt as to the treatment that these railroads ought to have, then, that is another question, and the point I want to make is that I believe that you have got to handle these rail-

roads as a separate entity, regardless of the stock that is owned, because you are entitled to it. Now, if they take these railroads, if one of these railroads is owned by say one of the trunk lines, and their earnings under Section 15-A were thrown in, I don't think that needs any preferential treatment at all, because they take advantage of that perhaps to keep from paying the Government something over 5¾ per cent." (Tes. 762-765.)

Now, the important thing, what we need in this territory is service, and I want to say that I believe that the service that the railroads have given in the South is about 50 per cent, if not 100 per cent, better than the service given before. I do not hesitate to say that. Now, there is just one other exhibit that I want to call your attention to, and [fol. 597] that is this, my last Exhibit No. 286, covering the years 1915 to 1924, showing the acreage planted in Georgia, which we have selected as a typical State, the crops consist of various farm products, it will be noted that the cotton represents practically 50 per cent of the farm values. This statement is worthy of study, because we believe it emphasizes the fact that was brought out by Mr. Dalton this morning, that the consumption of fertilizer is not dependent, nor the freight rate, as it is the economic condition of the preceding season. If you had a good year, the value of farm products was good, the consumption of fertilizer was a little better than it was in years when it was not so good. And that has been my observation, and I really think that the fact that the price of the commodity and the return of the farm value of products, has more to do with it than the freight rates.

Now, that concludes my testimony, with the exception of the question of Fourth Section relief of these various lines. I have discussed it with practically all of the railroads. I am not asking for Fourth Section relief for one of the railroads that you mention, the Durham & Southern, but I have a list of them here, that I am asking it for. I have a history of the railroads, and their earnings are shown in these three statements, and if you care, I can swear to this, and put it in the record if you desire to shorten your procedure. It covers about 26 pages. And, I have a financial statement, and a statement of the tonnage, which covers about 20.

I can make it an exhibit, if you will let me file it later. The Commission has heretofore always given these various lines relief. (Tes. 765-67.)

Cross-examination:

I don't know how many miles of railroad the Alabama, Gulf & Florida has; they show 32 miles, tonnage mileage. The individual roads work up this data. I don't know how many stations we have got in Florida. I don't know how much fertilizer they handle in Florida. I don't know that they handle 10,000 tons.

I knew that the Andalusia, and Florida & Gulf Railroad had asked the Interstate Commerce Commission for per-[fol. 598] mission to abandon. I did not know that they leased the rails from the L. & N. Railroad, but that is not unusual for the short line railroad to lease rails from another railroad. There is an investment of $26,905.49.

"Q. The only reason I asked you about this railroad, you had something to say about what they got for hauling fertilizer, as though they were of any importance.

"A. Well, do I understand you, Mr. Commissioner, to say—as Commissioner of the State of Florida, that you do not think the short-line railroads of any importance in the State?

"Q. I say, the railroads don't amount to anything when they want to tear up the rails and they have got four or five miles and two stations, two little country stations?

"A. I, of course I did not build the railroad, but I presume the railroad is worth as much to the patrons—those two railroads are worth as much to the patrons that they serve in Florida as the Seaboard Air Line or Atlantic Coast Line, trunk lines."

It is a fact that the East and West Coast Railway is a subsidiary controlled by the Seaboard Air Line Railway, and operates continuous Seaboard mileage rates in Florida.

The same is true of the Florida Central & Gulf Railway; it is also true of the Tampa & Gulf Coast Railway, and the Tampa Northern Railway. They are considered Seaboard properties; they have certain—I don't know that they acknowledge ownership; they have some interest in them, but just how much interest I don't know, but they are considered as subsidiaries of the Seaboard Air Line Railway.

I indicate in here the Live Oak Perry & Gulf Railroad; my information is that is not now being controlled by the Atlantic Coast Line Railroad. I gave a list of the stockholders this morning. Around 53% of the stock is owned or controlled by the Atlantic Coast Line Railroad.

I had the Charlotte Harbor & Northern; I know that the Seaboard Air Line is asking approval of a lease, and also the approval to buy the Charlotte Harbor & Northern Railroad; but that has not been approved by the Commission, and it is still a short line railroad. (Tes. 767-770.)

(Witness excused.)

[fol. 599] bama, Tennessee & Northern wants to make a short statement."

E. C. Ash was thereupon called as a witness and having been first duly sworn, testified as follows:

Direct examination:

(Statement:) I just wanted to file two exhibits for the A. T. & N., and then ask permission to file at a later date, or get Mr. Streyer to file with his Fourth Section application, a similar application for our line.

Exhibit 288 is a statement showing the number of carloads of fertilizer moved to stations on the A. T. & N. Railroad during the months of January, February, March and April, 1924. There are eleven points of origin, that cover the entire movement to the A. T. & N. for those four months.

(The statement was thereupon received in evidence and marked "Respondents' Exhibit No. 289, Witness Ash.")

No. 289 is a statement showing comparison of rates from the four principal points of origin from which the shipments actually moved to stations on the A. T. & N. Railroad to which shipments actually moved, the four principal points being East Point, Georgia, Meridian, Mississippi, Mobile, Alabama, and Montgomery, Alabama.

(The statement was thereupon received in evidence and marked "Respondents' Exhibi tNo. 289, Witness Ash.")

Exhibit No. 288 shows that during the four months, January, February, March and April, 1924, there was shipped

to our line 139 cars. There are no fertilizer factories on our line, everything is over two or more lines.

You will notice that the bulk of the movement was from four points, and then on Exhibit No. 289 I have taken those four points and used points of destination to show shipments actually moved, and put in the present rates, and the proposed rates, based on the Third Royster Joint Scale, plus 50 cents per ton. From East Point, Georgia, you will note that an average for the entire line shows that [fol. 600] the proposed rates would be a slight reduction. The same is true from Meridian, while from Mobile there would be an increase, and from Montgomery there would be an increase from the rates that were in effect at the time these shipments moved—there will be a reduction, I should have said, over the rates at the time these shipments moved, but increased over the present rates that are in effect on account of a recent order of the Alabama Public Service Commission.

That is all I want to say for the A. T. & N., but I have a small statement here for the Alabama & Northwestern Railroad, which is a short line, that is handled by the A. T. & N., the stock being owned by the stockholders of the A. T. & N. The Alabama Northwestern is a short line 24 miles long, from Pine Hill, Alabama out to Coxheath, Alabama. If you will permit me, I will file this as Exhibit No. 290, which is a comparison of rates on fertilizer from Mobile & Selma to points on the A. & N. W.

(The statement was thereupon received in evidence and marked "Respondents' Exhibit No. 290, Witness Ash.")

This exhibit shows that the proposed rates from both points are considerably lower than the rates that were in effect during the first four months of 1924. However, they show some increases over the rates that are now in effect since the Alabama Public Service Commission's order of 1924. That is all I want to say except about the Fourth Section. (Tes. 770-773.)

Cross-examination:

The rates shown on Exhibit 289, Meridian and Mobile, were prescribed in the Meridian Case; they are not the full combinations on the junction point. They are the same rates that were in effect from Meridian to Alabama, Ten-

nessee & Northern stations prior to the Meridian order, and they have been put in from Mobile. Both of these railroads don't run through an undeveloped section of Alabama agriculturally; the A. T. & N. is coming out mighty strong in cotton this year, and for some years past we have shown a great improvement, and this year is going to be the best of all.

[fol. 601] "Q. You run through a large undeveloped section, don't you?

"A. Yes, lots of cut-over land, too."

If that section is developed agriculturally, it will certainly benefit our railroad. I cannot say that the chief hope of our railroad after the timber is exhausted is to develop the agricultural possibilities of that section. I think one of our chief hopes is to some day be a trunk-line.

I know enough about the financial condition of the A. T. & N. Railroad to say that the 1924 financial statement showed a deficit. I don't know how much money that statement showed that railroad had in the bank. I don't know that it has got about half a million dollars in cash in the bank, that it has accumulated out of its operations and at the same time that the reports have been showing that it has had a deficit. I certainly do not know that.

The president of the A. T. & N. Railroad is Mr. John T. Cochran. He is also president of this other railroad.

I do not know what salary he draws from the A. T. & N. Railroad from seeing it, but I have heard what it was. I cannot say that I know it. I have heard what it was. I have heard it was $2,000.00.

"Q. Well, he draws a salary of about $3,600.00 a year from this other railroad?

"A. I don't know a thing in the world about the other railroad, except I do handle some rates for them."

I cannot say we have got several officials drawing salaries from the A. T. & N., and this other railroad, both. I cannot say they are drawing salaries from the other railroad.

"Q. You have got a long list of them drawing salaries from the A. T. & N.?

"A. No, sir, not got many officials." (Tes. 773-776.)

(Witness excused.)

"Mr. Mohr: Mr. Commissioner, during the last hearing Mr. Drescher representing all of our lines, found a number of statements showing the disparity between the Alabama intrastate rates, and the interstate rates from representative points, and you asked him concerning the move-
[fol. 602] ment. At the time he did not know what it was, but offered to supply it. He is ready now to submit exhibits showing the same rate data on that former exhibit. He is ready now to submit the exhibits.

"Com. Eastman: Very well."

H. H. Drescher was thereupon called as a witness and, having been first duly sworn, testified further as follows:

Redirect examination:

These are 13 exhibits showing the movement of fertilizer in cars and in tons from the Alabama shipping points and the interstate shipping points to destinations in Alabama covered by my Exhibits Nos. 169 to 181, inclusive, those exhibits having been prepared to show the advantage that the Alabama manufacturing points have under the rate adjustment from the Interstate shipping points to destinations in Alabama. I have no remarks to make concerning them, they speak for themselves. I would just like to introduce them at this time in response to your request. (Tes. 776-7.)

(The statements were thereupon received in evidence and marked "Respondents' Exhibits Nos. 291 to 303, inclusive, Witness Drescher.")

(Witness excused.)

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Statement by Mr. Maxwell

On behalf of the North Carolina Corporation Commission, I wish to make the following statement:

Rates on fertilizer between points in North Carolina prior to 1914 were on substantially an equal basis with interstate rates from Norfolk, Virginia, and Charleston, South Carolina. Upon order of a special legislative commission in 1914 rates on fertilizer between points in North

Carolina were reduced 20 cents per ton. Resulting from this reduction, complaint was filed by the Royster Guano Company, in Norfolk, alleging discrimination in the interstate rates, and subsequently a similar complaint from the Charleston Freight Steering Committee. Upon hearing of these complaints, the Interstate Commerce Commission [fol. 603] found a discrimination to exist against the interstate rates and in favor of the intrastate rates, which the carriers were required to remove by reduction of the interstate rates to the level of the rates between points in North Carolina and restoring an equal relationship as between intra- and interstate rates. In 1924, in the Blackshear Case, the Interstate Commerce Commission prescribed a lower level of rates to apply interstate between Blackshear, Georgia, and points in Florida than the level of rates approved in the case of the Royster Guano Company and of the Charleston Freight Steering Committee.

Upon investigation, it also appeared that the rates between points in North Carolina are on a higher level than like rates in any other of the Southeastern States. In February, 1925, a hearing was assigned before the North Carolina Corporation Commission to determine if there should be a reduction of rates on fertilizer between points in North Carolina. No order has yet been issued by the North Carolina Corporation Commission resulting from this hearing for the reasons:

First, it was apparent after the completion of the record in that hearing that an order could not be made effective until the larger part of the movement for the crop season of 1925 had taken place.

Second, that a reduction in rates between points in North Carolina without a corresponding reduction in interstate rates would create another discriminatory situation with respect to interstate shippers, and

Third, the order for this general investigation by the Interstate Commerce Commission of fertilizer rates in the Southeast had been issued and it seemed reasonable to expect that a final determination fixing a uniform general level of interstate rates within the Southeast would be made before the beginning of the fertilizer movement for the next crop season.

For these reasons, no order has been made by the North Carolina Corporation Commission in its proceedings above referred to and with the hope and expectation that such order may be made before the beginning of another season [fol. 604] for movement of fertilizer and under conditions which will permit a readjustment of rates on fertilizer between points in North Carolina on a level no higher than obtains generally throughout the Southeast and without creating any discrimination against interstate shippers. It seems to us apparent that the level of rates on fertilizer between points in North Carolina adopted in 1914, and which became the basis for the scale of rates known as the Royster scale, is a higher scale of rates than should be continued between points in North Carolina or adopted for general application, State and interstate, throughout the Southeast. The Interstate Commerce Commission has found in the Blackshear Case that the issues involved in the case of the Royster Guano Company and of the Charleston Freight Steering Committee were limited to the question of removal of discrimination against interstate shippers involved in these complaints and that it was not the intention in those proceedings to fix a general level of rates on fertilizer for application throughout the Southeast.

It is our opinion that a lower level than the Royster Scale should be adopted for general application throughout the Southeast, and it is the purpose of the North Carolina Corporation Commission to revise the schedule of rates on fertilizer between points in North Carolina before the season for another general movement of fertilizer and as soon as this may be done without creating discrimination against interstate shippers.

"By Mr. Dalton:

"Q. Mr. Maxwell, has it not been the policy of the North Carolina Corporation Commission to accord the Norfolk Southern Railroad a higher level of rates than they accorded other trunk lines within the State of North Carolina?

"A. Mr. Dalton, I heard part of your testimony this morning with relation to that exception, and as I recall it, the statement you made about it was accurate, the Norfolk Southern is permitted to charge a higher level of rates on

class traffic, and on some commodities, including fertilizer." (Tes. 778-81.)

(Witness excused.)

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[fol. 605] "Com. Eastman: Now, Mr. Fleming, we will hear from you."

(Statement)

"Mr. Fleming: I am here representing the Southern States Phosphate & Fertilizer Company at Augusta, and their head office in Savanah, and we are here to ask removal of the discrimination against us in favor of shippers at Charleston and Columbia, South Carolina. I have prepared a written statement, which I am sure is briefer than I could make offhand, and with your permission, I would like to present this and file it. We have also present the general sales manager, of our company, and he can be put on the stand to verify the figures that I have in here."

William H. Fleming was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

(Statement:) You will understand that the figures I obtained from a witness who will be put on the stand.

Presentation of facts and law by Southern States Phosphate & Fertilizer Company.

The Southern States Phosphate & Fertilizer Company is a corporation existing under the laws of Georgia, with its principal office at Augusta, Richmond County, Georgia, but with its largest manufactory at Savannah, Chatham County, Georgia.

A large part of its output is shipped into the State of South Carolina.

In the year 1924-1925, this company shipped to various points in South Carolina from its Savannah factory, 12,125 tons; and from its Augusta factory, 1,523 tons.

The competitive point of other factories as against shipments from Savannah, Georgia, is Charleston, South Carolina; and the competitive point against Augusta, Georgia, is Columbia, South Carolina.

Prior to March 15, 1924, the freight rates from these competitive points between Carolina and Georgia, were substantially equal, and this company makes no complaint for any discrimination prior to that date, March 15, 1924. [fol. 606] On March 15, 1924, the South Carolina Commission put into effect a reduction in intrastate rates of 12 per cent. The railroads entered a protest against this reduction, but put the new rates into effect.

This reduction of rates in favor of Charleston factories, gave them an average advantage on shipments from Savannah of about 40 cents per ton; and on shipments from Augusta of about 22 cents per ton.

During the year 1924 and 1925, this company shipped from Savannah into Carolina, 12,125 tons, resulting in a loss to this company at about 40 cents per ton of about $4,850.00.

During the same season this company shipped from Augusta, Georgia, to Carolina points 1,523 tons, resulting in a loss of, at 22 cents per ton, $335.00.

The total loss for that one season on shipments at both points amounted to $5,185.00.

To sustain these facts, this company has present at this hearing its general sales manager, Mr. J. A. Baggs, and asks the privilege of putting him on the stand as a witness.

On January 30th, 1925, the South Carolina Commission passed an order, making another reduction on intrastate rates, to be effective March 8, 1925, amounting to about 10 per cent.

Against this order, the Atlantic Coast Line Railroad Company and others obtained a temporary injunction in the United States District Court for the Eastern District of South Carolina, and your petitioner appeared in the character of an intervener or amicus curiæ at the hearing of that case on March 19th, 1925, and presented substantially the facts above set out; and that injunction is still of force.

Assuming that this company would have the same volume of business for the next year as for the last, if this additional reduction of 10 per cent should become effective, the proportionate loss would be $4321.00, or a total of $9506.00.

Under the Constitution of the United States and under the Interstate Commerce Law, this company is entitled to

have the above mentioned discrimination against it removed.

The whole trend of Federal legislation and judicial construction has been in the direction of preventing discrimination by one State against another in general commerce. [fol. 607] Indeed, political economists have not hesitated to attribute the growth and prosperity of the United States as a nation to the practice of free trade among the States themselves.

It is in direct contravention of this principle of free commercial intercourse, for the State of South Carolina, by lowering transportation rates inside of the State, to put into effect what amounts to a tariff against the import of fertilizers from a sister State. Besides, such a tariff puts no money in the treasury of the State, and is thus lacking in one of the chief elements of the usual protective tariff.

It is especially inappropriate that such a tariff wall should be erected by the State of South Carolina, since her two great statesmen, John C. Calhoun and George McDuffie, were leaders in opposition to a protective tariff, resulting in Carolina's Nullification Act in 1833. (Tes. 781-785.)

Fertilizers are a standard product, with fixed percentages of constituents, and there is little or no opportunity for one manufacturer to hold its share of the market against a competitor by raising the qualaty of its goods.

This Georgia company is obliged to meet the price of its Carolina competitors at any given point in the State, and consequently the difference in the freight rates constitute a direct loss to the Georgia company, and a direct gain to the Carolina company. The discrimination is flagrant and unjust.

This company respectfully urges:

First, that the discrimination be removed, by putting the Carolina shipper on the same basis as this Georgia shipper;

Second, that prompt relief be given, as the loss to this company increases every day the discrimination is allowed to continue.

It is obvious that the discrimination may be removed in three ways; by raising the intrastate rate, or by lowering the interstate rates or by combining these two methods.

The choice between these three methods lies of course with the Interstate Commerce Commission.

If this company's preference is to have any weight with the Interstate Commerce Commission, it expresses that [Vol. 608] preference in favor of making some resolution in freight rates, so as to benefit the agricultural interests of this section, which are in great need of whatever help may be given them by proper Governmental regulation of transportation rates.

Now, Mr. Baggs is here, and I will be glad to put him on the stand and ask him the general question if he furnished me with those figures.

(Witness excused.)

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JAMES H. BAGGS was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

My position with the Southern States Phosphate & Fertilizer Company is sales manager. My head office is in Augusta, Georgia.

Our main factory is in Savannah, Georgia. We also have a factory at Augusta.

"Q. Mr. Baggs, you have heard this statement, the written statement that I have just made. I wish to ask you if I obtained those figures of shipments and rates from you?

"A. Yes, sir."

I based those figures on the official data that we paid on the regular schedules.

"Mr. Fleming: That is all I wish to ask. He has his tables with him to verify them.

I will say, Mr. Commissioner, that the rate that we found, of course we had to average a little to get that, but the nearest we could possibly come to it was over 39 cents, and a little bit over 40. If we take into consideration the volume of the shipments, we think it would be a little more. We put that down, and we may have missed it 1 cent, but we do not claim it is mathematically correct, but it is substantially correct." (Tes. 785-87.)

(Witness excused.)

[fol 609] J. U. Parrish was therenpon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

I have a few exhibits here showing the interstate rates. My name is J. U. Parrish; I represent the Lakeland Chamber of Commerce and Non-Acid Fertilizer & Chemical Company. I would like to make a little statement, in connection with this hearing. We have in Florida some large discriminations between the interstate and interstate (intrastate) rates on fertilizer; and some very large discriminations in the territory between points especially in the Southern part of the State, and without very much comment I would like to say that we have no objection to the Florida scale, and for the interests I represent I can say like the Commissioner of Florida would say, that in passing on this scale to be adopted in this hearing, that we would like to have as low a scale as we can get, but within the bounds of reason for interstate application, and I will submit this exhibit, and ask that the Commission in this hearing remove a discrimination between Lakeland and other points more distant from Lakeland and Jacksonville, and certain other producing points. Those other producing points are at Gainesville, Ocala, Sanford, Tampa, and St. Petersburg. I am talking about discrimination in interstate rates. That is, those points that I mention have relatively lower rates than Lakeland has from any interstate points. You understand that our rate interstate is a basic rate south of Jacksonville. On any interstate rate they have lower rates than we have. Take one example, the material rate from Jacksonville to Tampa is $1.47 a ton; our rate is $3.15. We are not complaining in the face of other rates that have been adopted by the Commission on the interstate rate, but we are making complaint on the rates to Tampa and other points. Those other points are on the water; they have rates affected by water competition; but we are only 32 miles from Tampa, and we claim that it would not be that much discrimination between the two points. In other words, they can—most of these points south of Lakeland can buy the material from any interstate point, ship it in by rail, and it leaves Lakeland as a produc-

[fol. 610] ing point out of the market. I do not know whether the rates which the carriers are proposing in this proceedings will relieve us of that discrimination of which we complain. I understand from Mr. Menzies of the Coast Line that the rates adopted in this case would do away with the discrimination.

By Mr. Burr:

"Q. One minute, Mr. Parrish, what point of origin did you name as having lower rates to Gainesville?

"A. Well, I just said, Mr. Burr, any interstate points.

"Q. No, but you said farther distant than Lakeland.

"A. Well, St. Petersburg and Tampa.

"Q. Well, but you named Gainesville as one, and Ocala as another.

"A. Well, I could name that as a State rate, Mr. Burr, Tampa, Plant City, Gainesville and Ocala.

"Q. Well, are not Gainesville and Ocala nearer the points of shipment than Lakeland, aren't they?

"A. Yes, that is true, nearer; but St. Petersburg and Tampa, and Plant City are not. Plant City has a lower rate to points in the Western part of the State than we have got." (Tes. 787-90.)

(The statement was thereupon received in evidence and marked "Protestants' Exhibit No. 304, Witness Parrish.")

This exhibit shows the fertilizer and fertilizer material rates from Jacksonville as a basing point, to Lakeland, in comparison with rates to Tampa, St. Petersburg, The Jungle, Tyrone, Orlando, Florida, and Gainesville. Those are the present rates.

And on fertilizer material to Lakeland, Gainesville and Tampa, showing the distance to which points from Jacksonville and the interstate rates from Jacksonville, Florida, to the points mentioned. I have also shown the scale of rates from Blackshear, and Albany, Georgia, to Lakeland, Jacksonville and Plant City, Quincy, River Junction and Tampa, and the fertilizer material moving intrastate from Plant City, Orlando, Gainesville, Lakeland and Tampa to River Junction. That is just to give you an idea how the present rate adjustment of rates are in Florida. On the [fol. 611] third page I show the rates from Jacksonville,

Tampa, and Lakeland to certain points in Louisiana: that in other words we ship to a lot of points in Louisiana, we ship stuff from Lakeland to these points. Our rates are relatively much higher than from Jacksonville or Tampa to those points.

As to whether the basis of our complaint being largely the reduced rates to Tampa, Florida, on account of the water competition at that point: I will admit that they have got water competition there, but they should not have that difference in the rates. If you are going to bring water competition into it, we are only 32 miles to Tampa. There is discrimination as between Lakeland and other points in Florida on intrastate traffic. My exhibit shows it. Between Plant City, Orlando, Gainesville and Lakeland. I have shown in this exhibit fertilizer material from these points to River Junction.

I know that the rates on fertilizer and fertilizer material, as authorized by the Florida Commission, are on a scale, and that the mileage between given points governs what the rates will be, but we can reach River Junction with very nearly as short mileage as Plant City can.

"Q. Well, what I am getting at is this. If rates are based on mileage scale, how can there be any discrimination in the application of those rates, unless there is misquotation or error made somewhere?

"A. Well, I will grant you that is true; the railroads make a lot of errors in publishing rates." (Tes. 790-93.)

You know what the Commission says. The Commission handled it through what they call their informal complaint, and if you don't get anything out of the railroad, in 99 cases out of 100 you wont, the Commission will write you then, send you a little letter and tell you your recourse lies in a formal proceeding. You are acquainted with that.

I failed to get that distance from Lakeland to River Junction, but knowing the route you travel there, there should not be any difference in our rate and Plant City.

I am not prepared to say offhand how far it is from Plant City to River Junction but even if we had to travel through Plant City, we would not be but 10 miles from it. It is not [fol. 612] a fact that it is about 400 miles, somewhere there-

about to River Junction. I would not think it would be quite that far. It is somewhere near 400 miles.

I am not prepared to say how much fertilizer the Lakeland concern ships to River Junction; I do not know that they ship any, but I am only showing this, to show that the present adjustment of the Florida scale, and the interstate scale.

There is discrimination in the Florida scale in the rates. In other words, the Plant City rate is $2.48 a ton. We will let the scale speak for itself before the Commission.

"By Mr. Tench:

"Q. There is an interstate rate from Lakeland to River Junction. Are you not sure that you have got the interstate rate mixed up in this exhibit?

"A. Well, I have got the tariff authority that shows there."

We ship fertilizer and fertilizer material—commercial fertilizers.

Our principal market is anywhere in Florida; anywhere in the Southern States.

I am claiming here that there is an undue discrimination in our rates; if we get the same level of rates with other points in our territory, we will be satisfied. I have not offered any scale of rates, asking the Commission; we will leave that to Mr. Burr.

I represent the Lakeland Chamber of Commerce at Lakeland, Florida, and the Non-Acid Fertilizer & Chemical Company.

"By Mr. Burr:

"Q. If I understand your testimony, it creates the impression on my mind that this fertilizer company at Lakeland has materials shipped which would make a shipment over in the Northern part of the State, Western part of the State, at River Junction. What materials do they originate there at Lakeland?

"A. Well, I am not prepared to show that, Mr. Burr, but I know this, that I have hundreds of cars that are mov-[fol. 613] ing from Lakeland to points in Louisiana and out of the Western part of the State. They ship out as fertilizer."

They ship out as fertilizer; I don't know what it is, I only have the bills of lading. I don't know from what they create these chemical ingredients, to make fertilizer, at Lakeland. In other words, they don't have to ship any fertilizer materials from other points to Lakeland. They get fertilizer materials from St. Louis and other points, but they have certain ingredients that they mix there, that they call a fertilizer material, and ship it out; I am not prepared to say what it is, but I have hundreds of bills of lading for shipments that they have made in the last twelve months. They ship out as fertilizer materials in the bills of lading; I don't know what it is; I am not prepared to say. (Tes. 793-97.)

"Com. Eastman: Now, Mr. Cotterill, I guess you come next; unless there is someone else here who wants to take a short time.

"Mr. Cotterill: Mr. Commissioner, it has been suggested that perhaps an understanding of the evidence to be submitted from now on would be aided if I were to advise the Commission and the parties now, and in the time which has intervened since the last hearing, considerable effort has been made by all interested elements so to correlate this evidence as to avoid repetition. Residing rather remote distances from each other, and considering the season of the year, it doubtless will appear that it was not wholly possible to avoid some measure of repetition, but in the main the object was as a result of the conferences, correspondence and otherwise, so to analyze the elements in the case, as that when it was determined that certain particular groups were in best position to deal with certain particular subjects, the complete and exhaustive treatment of those subjects has been left to them, without the effort being made by others to cover the same items in any partial degree. As a consequence, while it cannot be said that technically any particular party adopts as such the evidence of all the others, yet it will appear from this explanatory statement that in reality the procedure is that in the division of subjects to be testified to, the effort was to avoid the duplication that I spoke of, in effect is the same as if the parties were adopting each other's testimony.

[fol 614] "Now, the witness to be called to the stand (Mr. Davis), will describe the particular capacity and function in which he appears technically in behalf of the United States Department of Agriculture. It should be said that the evidence to be submitted through those agencies is of such a character as it dispensed almost wholly with the necessity of covering any part of that kind of statistical data which is peculiar to the economics of the fertilizer and agricultural industries of the South.

"Following him, other witnesses will likewise deal with subjects, irrespective of the particular group or interest to be represented by them individually. The concluding part of the statement which it was suggested might well be made by me is of this character. In the main, the shipper elements in the case have started with the presumption that under any circumstances, such a revision of rates as might result from this proceeding would at least involve no aggregate increase in the revenue yielded by the existing charges. Practically no evidence will be directed as such to the sustaining of that premise or point of view which is the starting point in the case, but rather the remainder of the evidence will be directed more particularly to those phases in the case which conceivably in the point of view of the shippers' minds perhaps justify some consideration in the wind-up of an average rate level less than would be yielded by the existing transporttion charges.

"Mr. Mohr: May I inquire, Mr. Cotterill, when a witness appears to deal with a general subject, he will later reappear to deal with his own particular situation?

"Mr. Cotterill: I think not. On the contrary, the case has been prepared very much along general lines, and the special interests have been very much eliminated and subordinated, and I think unless it be clearly indicated to the contrary, it may be assumed that when a witness has appeared on the stand and then finished, it will represent the entirety of his evidence." (Tes. 297-299.)

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[fol. 615] R. O. E. Davis was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

My name and address: Roy O. E. Davis, 7014 Alaska Avenue, Washington, D. C. I am a physical chemist, em-

ployed by the Bureau of Soils, Department of Agriculture. I have been associated with the Bureau of Soils, Department of Agriculture for something over 14 years.

I am a graduate of the University of North Carolina, I received my Doctor of Philosophy degree from there, specializing in chemistry. I spent one year in study at the University of Leipsig, Germany, was five years as instructor and associate professor of chemistry in the University of North Carolina, and for 14 years have been in the Bureau of Soils, Department of Agriculture, in various capacities in chemical, physical and fertilizer work.

The Bureau is charged with the investigation of fertilizer resources of the United States. In this work it has studied all of the existing sources of materials, has investigated like resources of materials, and has carried out investigations on the blending and mixing of materials, and possible future development in the industry. (Tes. 799-801.)

As an official of the Bureau of Soils, United States Department of Agriculture, I was charged with the duty of preparing and presenting the statements in connection with the pending hearing, together with certain statistical exhibits in support thereof; I was directed by the Secretary to appear at the hearing and furnish what information I had and could obtain from other Bureaus in the Department.

(Certain statements were thereupon received in evidence and marked "Protestants' Exhibits Nos. 305 to 323, inclusive, Witness Davis.")

I will proceed with the statement.

Brief history respecting soil amendments of fertilization:

From the earliest times it has been the custom to use materials as soil amendments to increase the productivity of the soil. Most of these at first were waste products and [fol. 616] their efficiency was determined entirely by farm practice. References were made in early literature to the use of such waste products as crop residues, animal wastes, ashes, soot and lime. Recognition was given to the fact that their use often increased the crop yields, but it was not until late in the eighteenth century and early in the nineteenth that efforts were made to ascertain and explain

the function of fertilizer materials. The discoverers of America and the early settlers found the Indians practicing in a primitive way, methods of soil fertilization. Early accounts described methods of the Indians fertilizing corn by placing a dead fish in the hill at each corn plant. The use of ashes, and vegetable and animal remains was also quite common before the beginning of the manufacture of so-called commercial fertilizers.

The commercial fertilizer industry of the United States as a manufacturing industry had its inception with the discovery of phosphate rock in South Carolina. This discovery was made in 1860. Near the same period the discovery of potash deposits in Germany and nitrate in Chile attracted the attention of agriculturists in various parts of the world. There followed a period of experimentation with these and other materials for use as fertilizers; and then came the discovery that the treatment of phosphate rock with sulphuric acid resulted in transforming the phosphoric acid in the rock to a form available to the plant. Another period of experimentation followed this in which efforts were made to supply all three of the principal fertilizer ingredients or plant food in one mixture, that is, a mixture containing nitrogen, phosphoric acid and potash in soluble form. The first acid-phosphate manufacture of fertilizer in this country was in 1869, and from these first efforts has grown the extensive fertilizer business of today. While phosphate is used in the largest proportion of any of the single fertilizer materials, there are a number of materials which have been imported from other countries to furnish the desired nitrogen and potash. These importations of material have been heavy, as may be seen from the table in Exhibit 305. (Tes. 801-803.)

Potash in this list is included under fertilizer not otherwise specified. That is, it is not stated in this column specifically. There are a number of salts of potash, potassium [fol. 617] sulphate, and potassium iridate, manure salts, that are used in mixed fertilizers, and each of those contain different percentages of the actual potash material. They are spoken of as potash materials, and they are valued on their content of potassium. Potassium is the element. It is calculated on the basis of oxide of potassium, $K_2O$.

It will be noted that since 1919, the highest value of imports was in the year 1920, when the value of such imports exceeded $75,000,000.00. The imports for 1924 were valued at about $66,500,000.00. I desire particularly to point out that the imports of pyrites have fallen from over 2,000,000 tons in 1919 to about 300,000 tons in 1924, due to the competition of American sulphur producers. I don't mean tons, I mean dollars.

The number of fertilizer establishments in the United States in 1919 was over 800, and in 1923 was slightly below this figure. This number includes the establishments producing fertilizer materials alone, and also those in which fertilizers are a subsidiary product. In 1923, 573 of the establishments were producing fertilizers alone, that is to say, their only product was fertilizer; about 75 per cent were engaged entirely in the fertilizer industry, and the remainder were engaged in it as a subsidiary. Of the 573 plants in 1923, 422 were located in the South, and the value of the products in 1919 amounted to $306,523,000.00, and in 1923—$192,968,000.00, as per statistics for the fertilizer industry furnished by the Census Bureau for the year 1923. This will be found in Exhibit 306.

On page 10 of this exhibit will be found statistics by States indicating the number of establishments and other plant data. In number of establishments, Georgia leads with 122. North Carolina has 64, Virginia 51, Maryland and South Carolina 48 each, Alabama 38, and Florida 17. In value of products, Georgia again leads the list with about $24,000,000.00, Maryland with $21,000,000.00, Virginia with $18,000,00-. North Carolina with $17,000,000.00, South Carolina with $13,000,000.00, Florida with $12,000,000.00 and Alabama with $7,000,000.00. Out of the total value of $183,000,000.00 from the plants engaged in manufacturing fertilizers as their primary product, $126,000,000.00 was produced from the States in the South.

[fol. 618] The sources of fertilizer materials have been many and widely distributed. The two principal nitrogen materials have been Chilean nitrate, an imported product, and ammonium sulphate derived from by-product, coke ovens and gas plants. Chilean nitrate has always been considered the principal nitrogen carrying material, but the

production of ammonium sulphate has increased very rapidly within the last few years so that at present Chilean nitrate and ammonium sulphate are the two main nitrogen carriers. In addition to these two materials, other materials, organic in nature and containing nitrogen have been utilized, such as cotton seed meal, dried blood and tankage, fish scrap from the industry producing the scrap for fertilizer and oil for other purposes, and garbage tankage. In addition a number of minor sources of organic wastes such as hoof, horn, hair, wool waste, etc., have been used, the tonnage of which amounts annually to around a million tons. The consumption of Chilean nitrate or nitrate of soda in the United States has normally been around a half million tons per annum. The present consumption, however, has dropped back to that comparable to that before the war. In this connection it may be pointed out that ammonium sulphate production also increased very rapidly during the World War. This production has continued high, now being over 500,000 tons per annum.

The next exhibit shows the imports of nitrate of soda into the United States by months for the year 1920-24. It will be noted that the imports in 1920 exceeded 1,000,000 tons but dropped off sharply in 1921 to something over 300,000 tons. Since that date there has been a gradual increase, 1924 having again approached close to 1,000,000 tons. The highest importation of this material was in 1918 when the amount reached 1,200,000 tons. (Tes. 803-806.)

The next exhibit shows the imports of nitrate of soda by customs districts. It will be seen that the North Carolina, South Carolina and New Orleans districts were the heaviest importers of this material during 1924, but that considerable amounts were brought into Virginia, Florida, Maryland, Georgia and Mobile ports.

The next exhibit gives the imports of nitrate of soda for 21 years extending from 1904 to 1924, inclusive. This illustrates rather clearly that the years from 1914 to 1921 were [fol. 619] abnormal in relation to this material. It will be noted that during the period of 1921 (1904-24) there were imported 14,612,488 long tons, or 32,731,973,120 pounds of nitrate.

The next exhibit shows the annual production of sulphate of ammonia from 1915 to 1924. During ten years there

has been on the whole a steady increase in the production of this material, the heaviest point being reached in 1923 to 600,000 tons. The production of 1924 was slightly less than this, but still well over 500,000 tons. The United States in relation to this product, exports considerable amounts, while at the same time some is imported from European countries. The consumption of ammonium sulphate is shown in the next exhibit over the same years that the production is shown. In 1915 the consumption was approximately the same as the production and in several years thereafter the consumption exceeded the production, but since 1920, the consumption has fallen below the production, there being slightly more than 100,000 tons difference in 1924.

Sulphate of ammonia is a by-product from coke and coal. The gases are collected, and in those gases ammonia is contained, and the ammonia in the liquor is treated with sulphuric acid, making sulphate of ammonia.

In the production of ammonium sulphate, large quantities of sulphuric acid have been used, thereby increasing the total amount of this material entering into fertilizer manufacture; the other large use for it being in the conversion of phosphate rock into acid phosphate.

Phosphate rock and sulphuric acid are the largest in quantity of any of the materials going into the fertilizer industry. Two to two and one-half million tons of phosphate rock, and the same amount of 50-degree Baume acid are employed normally to produce between four and five million tons of acid phosphate. Florida supplies most of the rock for this purpose, while Tennessee and Kentucky furnish a half million tons or less. It is estimated that Florida has about 227,000,000 tons of good rock available, Tennessee about 88,000,000 tons, and Arkansas about 30,000,000. However, the largest natural deposits of phosphate rock occur in the States of Idaho, Utah, Wyoming [fol. 620] and Montana. A rough estimate of these deposits places the high grade rock at about 6,000,000,000 tons.

The next exhibit shows the phosphate rock mined in the United States and sold during the years 1922 and 1923. It will be noted that the amount produced by Florida is by far the greatest, that the Tennessee field contributes less than one-half million tons, and the other amounts are

rather insignificant. As an illustration of the growth of the phosphate rock industry, the next exhibit shows the quantity and value of the rock produced for 25 years from 1900. From this table it may again be pointed out that the year 1924 was about the same production as 1914, and that 1920 was the year of highest production and highest value of the product. The production of sulphuric acid is given in the next exhibit over the years from 1915 to 1924. The figures from 1921 to 1924 represent the production of the fertilizer industry which may be seen to be fairly constant for the last two years. Sulphuric acid formerly was produced almost entirely from pyrites imported from Spain. The use of pyrites has reduced very markedly, as may be seen by reference to Exhibit No. 305, the value of the imports falling from $2,000,000.00 to something over $500,000.00 from 1919 to 1924. This has been due to the use of sulphur and its cheap production within the United States. The total production in this country from 1880 to 1901 of sulphur amounted to less than 8,000 tons. In 1906 the production was about 300,000 tons, and in 1917 it had passed the million mark. In 1920, 1,650,000 tons were produced. The sulphur market is controlled by Texas and Louisiana companies, mining material in Texas and Louisiana deposits. Stating the same thing slightly differently and in percentage figures, in 1900 95 per cent of the world's production of sulphur came from Sicily, in 1912 50 per cent came from Sicily, in 1917 only 14 per cent was produced by Sicily, while the United States was producing 80 per cent. In this connection it may be well to point out that while sulphur is not one of the three principal fertilizer ingredients, it is being used directly in some of the Western States in growing alfalfa, and for certain special land treatments. (Tes. 806-810.)

The packing industries, located around certain cities, such as Chicago, Omaha, Kansas City, contribute much [fol. 621] material containing organic nitrogen and considerable phosphate. One of the principal products, tankage, is derived from meat scrap material, is cooked to remove the fat, is filter pressed, dried and ground. The meal derived from it has a brownish color and contains nitrogen from 7½ to 9 per cent, and 20 to 12 per cent phosphate. The production from the packing industry in 1918 showed more than 350,000 tons of tankage and in addition, 35,000

tons of dried blood and 55,000 tons of bones. Another large source of organic nitrogen is the fish industry.

Fish scrap is derived from inedible fish and prepared for use as a fertilizer material. Along the Atlantic and Gulf Coasts, there are about 50 fish scrap plants from Maine to Texas. Most of these, however, are in the Chesapeake Bay region. The fish used in the industry is principally the menhaden. These fish travel in schools and they are caught in nets from small boats. After being transferred to steamers, the fish are carried to bins on shore from which they are transported through the plants. The fish are carried into the plants to a cooker and cooked with steam. They are then pressed for the removal of oil and water, and the residue dried and ground for fish scrap. This scrap carries from 7 to 9 per cent of nitrogen and 14 to 16 per cent of phosphates. The production of fish scrap for 1924 is estimated at about 46,000 tons, which is practically half of that produced in 1923.

Cotton seed meal has been one of the principal organic nitrogen carriers, but the size of the production varies with the size of the cotton crop. Normally the production of cotton seed meal is from 1½ to 2 million tons. However, the value of cotton seed meal as a feed product is being recognized more and more. The meal is derived from cotton seed by crushing and extracting the oil under hydraulic pressure. The residue is ground and makes a suitable material either for mixed fertilizers or for feed supplies. The meal contains 4 to 8 per cent of nitrogen, about 2.88 per cent phosphoric acid, and 1.77 per cent potash. Briefly, the situation at present regarding cotton seed meal is, that, of the production in the United States, about two-thirds is used as feed material.

A still more recent development in the source of nitrogen is the utilization of atmospheric nitrogen fixed as a nitrogen [fol. 622] carrying compound. The only material of this character that has assumed any importance in the United States has been calcium cyanid. However, in foreign countries, especially in Germany, the products from nitrogen fixation plants are being used in large quantities for fertilizers, and undoubtedly these products will assume more and more importance in this country. During the last year some German synthetic products were first introduced in the South for fertilizer purposes.

The source of potash used in fertilizers up to the period of the World War was almost exclusively the potash mines of Germany. The annual consumption of potash in the United States at the beginning of the World War amounted to about 240,000 tons of potash per annum. With the beginning of the War in Europe, this country was entirely cut off from its source of potash in Germany, and there followed a period of intensive investigation to discover sources of potash within the United States. Many and varied sources were discovered, and potash was produced from some of these, although it was not found economically feasible to utilize them all. The production of this country rose from zero in 1914 to approximately 50,000 tons of potash in 1919. With the reestablishment of trade relations with Germany and the possibility of securing foreign potash cheaply, the production of this country dropped off very markedly. Our source of supply is now mainly the mines of Germany, and the Alsacian mines of France; although under the keen competition from foreign potash it has still been found possible to produce about 23,000 tons of potash in this country during 1924. The potash imports in the United States in 1913 amounted to about 222,604 tons of muriate, 36,366 tons of sulphate, 247,950 tons of manure salts, and 490,390 tons of kainit, or a total of 997,310 tons of potash salts. (Tes. 810-813.)

The next exhibit shows the imports of potash salts by months during the years of 1923 and 1924.

I did not mention the sources of potash in this country. The principal sources have been Searles Lake, California, which is a desiccated lake, and certain lakes in Nebraska, which were worked during the war, but have been discontinued since then because it would not pay, and some by-[fol. 623] products, such as potash from alcohol distillation, in making alcohol from molasses. In Baltimore that is being done also, and a recovery of potash from cement mills and blast furnaces in small quantities. There are a number of still other sources, such as wool waste washings, and in small amounts from greensand, but most of these have not been commercially feasible. Borings have indicated that there are deposits of potash in Texas of considerable depth, that there has not yet been a definite discovery of deposits of great size, that is, they have not been

able yet to locate definitely how the beds lay, or what is the extent of it.

The total tonnage in 1923 was something over 600,000, and 1924 less than 600,000. The value of the material in 1923 was about $10,500,000.00, and in 1924 about $10,000,000. It will be seen from this table that manure salts are imported in the largest quantity, with kainit and muriate next in order, but the value of the muriate exceeds that of the manure salts because of its high percentage content of potash. The next exhibit gives the potash produced in the United States in the years 1916 to 1924, inclusive. The number of plants operating in 1924 is not indicated, the number does not exceed that of 1923 and probably is less. It will be seen from this table that under the influence of high prices and war conditions, highest production was reached in 1918. The lowest production since that was in 1921, since which time there has been a graual increase. Wood ashes are a source of potash.

With regard to my Exhibit 315, the last preceding one, the tons shown are the total dead weight tons.

The mixed fertilizer industry has grown up around the phosphate industry. Phosphate rock, which is converted by the use of sulphuric acid into acid phosphate, is the principal fertilizer material produced in the United States. The industry has centralized about this product, and many of the larger plants produce sulphuric acid either by burning sulphur, or by the use of pyrites, and this sulphuric acid is used in treating phosphate rock. There are two main steps in the production of mixed fertilizers. First, the manufacture of acid phosphate, and, second, the mixing of the phosphate with nitrogenous and potash material. In making acid phosphate, the ground rock is treated in mixing [fol. 624] kettles with an equal quantity of sulphuric acid, and the material run out into bins where it is allowed to age for a certain time before being removed and ground and placed in the mixing bins. In the manufacture of acid phosphate, certain low grade nitrogenous materials, such as leather waste, hair, wool, etc., are often mixed with the rock, and the sulphuric acid added. The result is what is known as base goods, or ammoniated phosphate. The material contains 1½ to 2 per cent of nitrogen, and 16 per cent of phosphoric acid. The acid phosphate ammoniate is then

used for a mixture with other materials to make up desired composition of mixed fertilizer. The survey of the Department of Agriculture in 1918 shows that 3,500,000 tons of acid phosphate and 500,000 tons of ammoniated phosphate mixed with other materials to form over 5,500,000 tons of complete fertilizer. There are assembled in the plants the other raw materials such as nitrate, ammonium sulphate, potash salts and organic materials of various sorts as already indicated as sources, and there they are mixed together into fertilizers carrying two or more of the three principal ingredients. Many of the larger plants carry out complete operation from the manufacture of sulphuric acid through the preparation of acid phosphate to the mixing of complete fertilizer. Other plants manufacture acid phosphate with acid bought from the acid manufacturers, and compound complete fertilizers. Still other plants buy all of the ingredients, assemble them in their plants, and mix them into the desired combinations. The industry as a whole has been a large user of by-products and waste materials. As already indicated, ammonium sulphate, a product of the steel industry, finds its greatest use in fertilizers. Waste materials from the packing houses are used, and some of the larger packing houses have established fertilizer industries of their own. However, the waste organic materials and by-products are gradually being withdrawn from fertilizer manufacture. Some of these materials, rather low in nitrogen, on a protein basis are valuable for feed material, and hence are being used more and more in this connection. The result of this has been an increasing price for the organic nitrogenous materials because of their food value and their availability in a smaller degree as fertilizers. (Tes. 813-17.)

[fol. 625] In addition to substances carrying phosphoric acid, potash and nitrogen, it is sometimes necessary to add inert material. It is often desirable to add this material with a fertilizer to prevent its caking and becoming unsuitable for use where application is made by means of drills. The materials used for filler generally have no important value as a fertilizer, or a low value in this respect, but may be of great value as a conditioner of the mixed goods. They comprise such things as peat, limestone, garbage, tankage, etc. As it is the practice in this country to manufacture the mixtures in the winter or early spring, and

it is some time before they reach the farmer, they must be prevented from caking in the bags if possible, where held in warehouses for some time. This has accounted for much of the use of organic materials, with the manufacture of more concentrated ammonia and phosphate salts, the problem of preventing caking and maintaining good condition has been intensified, and studies are now being made to overcome these undesirable features with some of our most concentrated and valuable products. The development of the industry has become more centered around chemical products, and intensive investigations are being fostered to supply the increasing demand for fertilizers and to make up the shortage due to the withdrawal of organic materials.

The use of fertilizers has spread from its beginning in this country from the vicinity where phosphate rock was discovered to other sections of the Unted States, although the greatest intensity of fertilization is still in the Southeastern portion of the country. The proportion of fertilizers used throughout the East, however, is rather large, The growth in the fertilizer industry has continued and with the exception of abnormal years brought about by the World War the increase has averaged around 8 per cent per annum. The annual consumption, previous to the war, had reached about 7,000,000 tons. There was a decline from 1914 to 1916 followed by an increase up to 1920 when the conservation was about 7,500,000 tons. Economic depression following in 1921 affected the fertilizer trade, as this depression was felt especially in the cotton belt. In 1921 consumption fell to about 5,000,000 (five million) tons. [fol. 626] Since that time there has been a gradual increase until 1923 slightly exceeded the consumption of 1913, and the 1924 consumption of 7,272,665 tons shows an increase over the 1923 consumption. The consumption in the South in 1924 amounted to about 4,700,000 tons which is an increase of approximately 400,000 tons over the 1923 figure.

The next exhibit shows the consumption of fertilizers for the years 1919 through 1924. From this exhibit it may be seen that in the last year North Carolina was the heaviest consumer of fertilizers, with South Carolina ranking second and Georgia third. The rise in consumption to the high mark in 1920, its rapid falling off in 1921 and its gradual rise from that time are readily seen from this table.

The next exhibit shows the tonnage of fertilizer used in each State in which the States are grouped by areas. Of the entire tonnage consumed, three States, North Carolina, South Carolina and Georgia, used in a normal year between 2,500,000 and 3,000,000 tons. Virginia, Alabama, Mississippi and Tennessee are also important users. Altogether, the Southern States use about two-thirds of the entire fertilizer tonnage of the United States.

The spread of the boll weevil throughout the South has served to disorganize the cotton industry and also the fertilizer industry in some respects, but it has emphasized the importance of using fertilizers to bring the crop to early fruition and help control the weevil. The middle Atlantic States of New York, New Jersey, and Pennsylvania normally take around one million tons of fertilizer. The East North Central States consume nearly two-thirds of 1,000,000 tons, while the New England States require slightly less than 500,000. Of the Western States, California alone consumes any considerable tonnage of commercial fertilizers. Since the trend in this country is to the production of larger crops per acre and the use of fertilizers admittedly accomplishes this purpose, the greatest increase in demand will probably be from Central Western States. While cotton is the crop using the largest tonnage, there are also large demands made in growing potatoes, sweet potatoes, vegetables, corn, wheat, and tobacco crops. There is also a considerable demand in growing citrus fruits and other fruits. In the State of Maine fertilizer consumed is used almost entirely on potatoes. In New Jer- [fol. 627] sey 40 per cent to 45 per cent of the consumption is required in growing potatoes. Rather large amounts of acid phosphates are used in corn growing in the States of Ohio, Indiana, New York, and Pennsylvania. A rough estimate of the demands of various crops places the amount consumed in cotton at about 35 per cent of the fertilizer tonnage. (Tes. 817-820.)

The intensity of fertilization in much of this country is below that of the practice in the United Kingdom, and considerably below that of several other European countries. The latest information available upon the use of fertilizers in Europe show that for the year 1920 Belgium used 513 pounds per cultivated acre; Germany, 202 pounds; the United Kingdom, 178 pounds; France, 89 pounds; Italy, 49

pounds; Denmark, 152 pounds, and Holland, 574 pounds. In 1912, Germany used 188 pounds; Great Britain, 162 pounds; France, 79 pounds, and Italy 77 pounds per acre in crops. In the year 1923, referring to this same exhibit, it will be seen that Delaware consumed about the same average of fertilizers as the United Kingdom. The State of Virginia, North and South Carolina, Florida, New Jersey, Connecticut, Massachusetts, Rhode Island and Maine all exceeded this value in the avearge use per acre in crops. This exhibit shows the pounds per acre in crops during the year 1923, the use of fertilizer during the years 1923 and 1913, the percentage increases or decreases for each State of 1923 over 1913, and the amount used per acre in 1919. The average use throughout the United States in 1919 was 40 pounds per acre in crops, while in 1923 the average is 35 pounds. It will be noticed from this table that the consumption in 1923 in the South Atlantic States is about 7 per cent. less than in 1913, although the average consumption per acre in crops was slightly higher. The sections showing the largest percentage increase is the East North Central, made up of the States of Ohio, Indiana, Illinois, Michigan and Wisconsin. The total average increase amounted to 1 per cent showing that in the year 1923 the consumption was approximately equal to the value of that in 1913. Due to the World War and economic features connected therewith, the intervening years have been rather abnormal for the fertilizer trade. Even in the South, where the intensity of fertilization is greatest, there are still [fol. 628] States in which the average consumption is low, for instance, the average in West Virginia is only 38; in Kentucky, 30; Tennessee, 32; Mississippi, 65; Arkansas, 22, and Louisiana, 51, while the average for Oklahoma and Texas is only a few pounds per acre.

The history of this country will probably follow that of others. As it becomes impossible to bring in newer regions of production the amount produced on the cultivated area must be increased and more modern methods employed to this end. This will mean the extension of fertilizer practice to regions where it has not at present become a fixed part of the farm operations. The reports of the year 1924 show that at least some fertilizer is used in every State in the Union. The variation, however, is very great, ranging

from 100 tons in Wyoming to over 1,000,000 tons in North Carolina. (Tes. 820-22.)

I was just speaking of the history in this country in applying fertilizer would probably follow that of other countries as the increased production would be demanded and the cost of land went up. In applying fertilizers, the practice in the United States differs decidedly from that employed in the more populous European countries. Fertilizer in this country is applied as a complete fertilizer, that is, containing at least two of the principal fertilizer ingredients. The practice here is to spread the material by machinery, and this is done generally in one operation, sometimes supplemented by later top dressing. The practice abroad differs from this in that the simple materials unmixed are used and are applied by hand largely, generally at different times, that is, the phosphate material, or the potash or nitrogen is each applied at a different time, according to the requirements of the crop. This can be more easily effected because of the labor conditions and the cultivation in small units not requiring the use of machinery as here, where our farm operations are on much larger areas. However, the practice of using mixed fertilizer is growing to a certain extent abroad.

Referring to Exhibit 320, this shows the amount of fertilizer used on cotton for the years 1923, 1924 and 1925. The column marked A gives the acreage of cotton by States, as reported to the Department of Agriculture. The Column marked B shows the cotton growers' estimate of the percentage of cotton acreage receiving fertilizer.

[fol. 629] I call your attention to the fact that in the four States, North Carolina, South Carolina, Georgia, and Alabama, 94 per cent of the cotton is fertilized. The Column marked D shows the amount of fertilizer applied per acre when used. The average amount applied per acre was 258 pounds in 1923; 272 pounds in 1924, and 274 in 1925.

We have not the figures for the average in the United States. The figures I gave aren't the average for the United States—not for fertilizer. They are the average for all of the land that is in crops, but all of the land that is in crops is not fertilized. Now, that average is 35 pounds. Now, the figures that I give on this exhibit are the total for the United States of fertilizer applied per acre where used.

It is fertilizer applied per acre, when used—but on cotton only. (Tes. 823-825.)

In the four States just named the average application is about 320 pounds per acre of cotton. The Column marked H, which is the last column, shows the average cost of the fertilizer per acre when used, based on the reported average price per ton, and the reported application per acre. The average cost per acre for all cotton fertilized was $3.94 in 1923; $3.90 in 1924; and $4.44 in 1925. In the four States, North Carolina, South Carolina, Georgia and Alabama, however, where approximately 75 per cent of the fertilizer applied on cotton is used, the average cost of fertilizer for fertilizing one acre in 1925 is $5.09. That is not shown on the table. Exhibit 321 gives the farm expenditures for fertilizer by geographical divisions and for the Southern States. In the first place, I call your attention to the general use of fertilizer in the South as compared with other sections. You will note that in the South Atlantic Division, 81 per cent of the farmers purchase fertilizer in 1919. In the six States, North and South Carolina, Virginia, Georgia, Florida and Alabama, 75 per cent of the farmers reported purchases of fertilizer. Outside of New England and the Middle Atlantic States, there is no section of the country which approaches the South in general use of fertilizer. The comparable amounts expended for fertilizer in 1899, 1909, and 1919, show the rapid increase, particularly in the South, where the expenditures [fol. 630] have doubled, and in some States trebled from 1909 to 1919. This is especially significant when it is noted that fertilizer was a large item in 1909. It will be pointed out in connection with a later exhibit that the future consumption of fertilizer is likely to be greater if favorable conditions exist. The last two columns of the exhibit show the average expenditures per farm reporting purchases of fertilizer. This amount varies with the size of the farm and the intensity of the application. The average for the Southern Atlantic States in 1919 was $199.00.

Exhibit 322 shows the cost of producing cotton in 1923 and 1924—there are two sheets to this exhibit. It is based on a questionnaire sent out by the Department of Agriculture to farmers located all over the cotton area. The reports that we received were classified according to yields,

and the results tabulated in a table somewhat in the manner presented in the exhibit. The different classes are listed at the left of the table. Column A shows the number of reports falling into each class, and Column B. is the number of acres of cotton per farm.. Column C the amount expended on fertilizer per farm. This was computed by multiplying the number of acres per farm by the reported expenditure for fertilizer per acre. In this connection, I call your attention to an error at the head of that column. In the parenthesis "D times E" should be "B times E"—that is the "Acres" times the "Fertilizer." Column D shows average yield for each class. The columns marked E to N show the various production costs per acre. Of particular interest is Column E, which shows the cost of fertilizer per acre. You will note there is a close co-relation between Columns D and E, that is the yield per acre, and the amount expended for fertilizer per acre. Expressed in another way, it may be said that as the amount expended for fertilizer increases, the yield increases.

Of primary importance is the relation of fertilizer costs to total costs. This is shown in Column F. You will note that the fertilizer cost varies from 11 to 19 per cent of the total production cost. Comparing it with other costs, it will be seen that fertilizer is second only to the harvesting and marketing columns as an expense in raising cotton, Column G.

[fol. 631] Columns P, Q, and R show the net return per acre before and after rent is charged.

One point of interest that is brought out in these columns is that many of the farmers with low yield per acre, are operating at a loss.

Page 2 of the Exhibit is the same as the first, but covers the year 1923. In making comparisons for the two years, it should be remembered that the average price of fertilizer in 1923 was about $2.00 a ton higher than in 1924.

Another point that can be drawn from these papers is that fertilizer is a labor saver in producing any crop, there is a certain amount of pre-harvesting labor, regardless of the expected yield. Naturally, as is shown by the exhibit, the amount of pre-harvest labor does vary slightly with the yield, but not in proportion to it. It follows, therefore, that if the yield can be increased without proportionate

increase in labor, there will result a saving in labor. The use of fertilizer brings about this result by increasing yield independent of the labor performed. (Tes. 825-828.)

On page 1 of the exhibit, in Column D, under the yield classes where the average is 125, and 293 pounds per acre, the larger yield is 135 per cent of the smaller. The fertilizer expenditure in the two cases is $3.12 and $6.81 respectively, or an increase of 118 per cent. The pre-harvest labor in the two cases is $9.33 and -11.72 respectively, or an increase of 39 per cent. By slightly more than doubling the fertilizer application, therefore, it is possible to increase the yield 135 per cent, and at the same time the pre-harvest labor was increased by 39 per cent. In the case of the smaller yield, the pre-harvest labor cost was 7.6 cents per pound, while in the larger yield it was 4 cents per pound. By using fertilizer to increase the yield, then, it is possible to reduce the amount of labor necessary per pound of cotton. The harvest labor, of course, varies directly with the yield.

The larger yield was 135 per cent in excess of the smaller.

"Q. I thought you said it was 135 per cent of the smaller?

"A. Yes, that should be."

The expenditure for fertilizer does not present itself to the farmer as a certain exchange of a small sum for a definite return of a larger amount. To him it is primarily [fol. 632] an expense item in putting in his crop. At best, it is a gamble to him, as is always true when he plants his crops. He may have bad seasons, the boll weevil may be especially destructive, or other pests may come. He faces these hazards as to whether he will obtain a normal crop even, and any increase in the price of fertilizer often causes him to leave off its purchase. In other words, if all goes well, his money is well spent, and is a good return; if not, he has lost an additional amount.

As has already been stated, the principal advantage from the use of fertilizer is from the increased production of crops on the fertilized area.

The use with regard to cotton represents an example in this country. Previous to the Civil War, cotton was raised by a relatively large amount of slave labor farming the best of the agricultural lands. Following the war, it

was necessary to raise crops with less labor on more restricted areas. Fertilizer application was resorted to, and increased cotton production resulted. The average production of wheat which has not received intensive fertilizer application in America, from 1908 to 1913 was about 15 bushels per acre, while the average production in Germany for the same period was slightly over 31 bushels per acre. The average in England for 1921 was around 35 bushels per acre, while that of the United States is close to 13. It is reasonable to expect that with increasing land costs and density of population there will be increased demand for more intensive methods of cultivation, and with it, an increased use of fertilizer. Dr. Haskell, Director of the Massachusetts Experiment Station, has estimated that in 1923 in New England three-fifths of the tobacco crop is due to the use of fertilizer; one-half of the potato, and one-half of the truck crop. In the South Atlantic States, the figures are given as one-half for tobacco; one-third for white and sweet potatoes and truck crops; one-third for wheat and two-thirds for cotton and cottonseed.

Along this same line is Exhibit 323, which is a publication of the Agricultural Experiment Station in North Carolina, Department of Agriculture, showing results of application of fertilizer to cotton. The studies which were made as a basis of this bulletin are typical of those made in different cotton States by the United States Department of [fol. 633] Agriculture, and by the several State Experiment Stations. The results which are shown in this exhibit can be paralleled by similar results of studies in other States. I may say that the results described here are the results of cooperation between the State of North Carolina and the Department of Agriculture.

The first point to be illustrated by this exhibit is that the use of fertilizer is essential in the raising of cotton in North Carolina. In substantiating this point, I would call your attention to the tables on pages 8, 21, 28, 36, and 43, comparing yields per acre with yields of different types of fertilizer, and without any fertilizer at all. It is shown that the use of fertilizer about doubles the yield.

Unpublished data for a series of experiments conducted in Georgia over a period of six years, show an average increase in yields from 950 to 1,263 pounds of seed cotton per acre with the use of fertilizer.

Another point illustrated by the exhibit is that the application of fertilizer per acre of cotton can be considerably increased over the present practice before the point of diminishing returns is reached. In other words, whereas the tables on pages 25, 33, and 40, and 47, show that the greatest yield per acre in North Carolina is obtained by applying 800 or 900 pounds of fertilizer per acre, the figures on Exhibit 322 shows that the average application in that State is but 470 pounds per acre. It seems obvious, therefore, that many areas in this State may obtain a larger yield from the greater application of fertilizer. The extent to which it is profitable to apply this additional fertilizer to obtain a higher yield will depend on the cost of the fertilizer and the value of cotton received from the additional application.

Regardless of all that has been said regarding increased production, the cost of fertilization, the fact is that there is a constant removal of plant food from the soil by the harvesting of crops. Dr. J. G. Lipman, of the New Jersey Experiment Station, has made an estimate regarding the loss and replacement of nitrogen in the soil under cultivation in the United States. It is estimated that the annual loss of nitrogen from all lands under cultivation, not replaced by manure or plowing under of leguminous crops, by atmospheric precipitation with rain and snow, and by [fol. 634] the present use of of commercial fertilizers, as between 3,000,000 and 4,000,000 tons. This would represent 15 million to 20 million tons of ammonium sulphate, or from 150 million to 200 million tons of ordinary commercial mixed fertilizers. (Tes. 828-832.)

The main points in this discussion may be summarized as follows. The fertilizer industry has grown from its beginning in 1869 to the point where the consumption is between 7 and 7½ million tons per annum. The high mark in 1920 being 7,600,000 tons. The tonnage for 1924 of 7,272,000 tons just slightly exceeds that of 1913, for the industry as a whole has just about recovered its pre-war conditions. The consumption in the South in 1924 was 4,680,000 tons, an increase of about 400,000 tons over that of 1923. The fertilizer used on cotton in 1924 was about 2,100,000 tons, an increase of nearly 300,000 tons over 1923; and the 1925 consumption exceeds that of 1924 by about 200,000 tons. The materials going into mixed fertilizers are

gathered from various sources in this country and bought in quantity equal to the mixed material, and after treatment and manipulation redistributed to sales agencies. The consumption of fertilizer has shown an annual increase of about 8 cents for normal years, but the years since 1914 cannot be considered normal as to the value of fertilizer consumed. Georgia and South Carolina especially are the heavy consuming States, and are not taking what may be expected of them.

The average use of fertilizer in the United States in 1923 was 35 pounds per acre in crops. Delaware consumes about the same as Great Britain; the amount being 173 and 178 pounds per acre respectively. The nine States of Virginia, North Carolina, South Carolina, Florida, New Jersey, Connecticut, Massachusetts, Rhode Island and Maine, all consume larger quantities per acre of crops than Great Britain—the Isles.

While the application of fertilizer, which on certain crops in certain sections is large, even in the South, where the intensity of application is greatest, there are still States using little fertilizer per acre. There will be an increased use of fertilizer with increasing costs of land, and the demand for larger production. The average cost of fertilizer per acre on cotton in the four States of North Carolina, South Caro- [fol. 635] lina, Georgia and Alabama, where most of the fertilizer is used on this crop is $5.05 in 1925. The cost of fertilizer is from 11 to 19 per cent of the total cost of producing cotton, and only the expense of harvesting and marketing exceeds it in value. The value of fertilizer as a labor-saver is pointed out. The pre-harvesting costs in growing of the crop is nearly the same with or without the use of fertilizer, but the increased production by the use of fertilizer raises the labor efficiency very much. The exhibit from the North Carolina station emphasizes the necessity for using fertilizer on cotton if an adequate yield is to be expected. (Tes. 832-834.)

Cross-examination:

Of these raw materials that enter into the manufacture of fertilizer supplied in this country, phosphate rock would constitute a volume by far the largest; the next to phosphate rock, I would say that sulphuric acid is largest in

point of volume; those two being combined to make acid phosphate, which of course is the base of all commercial fertilizers. I would say, of the raw materials entering into the manufacture of fertilizer for use in this country, phosphate rock and sulphuric acid together constitute by far the largest in point of volume.

It is rather a common practice in the Central West, particularly, to use acid phosphate for direct application to the soil.

In one sense I would say it is also rather a common practice that the farmers will purchase their own materials, and do their own mixing, in that it is a widely distributed practice, but as to the volume of business in comparison with the commercial fertilizer trade, I think it is comparatively small. However, let me modify that by saying that there are a number of cooperative farm organization- that are doing the mixing for the farmer members. Some of those have even established their own mixing factories. The Department of Agriculture has been favorable towards that practice.

Such figures as we have tend to show that there has been a gradual increase in the consumption of fertilizer since 1920 up to and including 1925—I don't think we have all the figures for 1925. Such figures as you have collected [fol. 636] tend to show that is true. I estimated that the consumption in the Southern States in 1925 would be something like 200,000 tons greater than in 1924. The variation in the amount of fertilizer used per acre in different States depends to a considerable extent upon the character of the crops grown, and also upon the character of the soil. Certain crops are fertilized more than others, cetton and tobacco are especially heavily fertilized, potatoes in Maine and New Jersey, and certain soils also are more heavily fertilized than others.

"Q. And that would perhaps explain the more marked variations as shown on your Exhibit No. 319 in the pounds of fertilizer used per acre as shown on that exhibit? For instance, in Florida it appears that in 1923 the use per acre was 557 pounds, does not it?

"A. Yes." (Tes. 834-37.)

That would be explained by the character of the crops produced in Florida, because much of the crops there are

truck crops, and citrus fruit crops on which they put heavy applications of fertilizer, and probably the character of the crop explains that.

"Q. In the same manner it appears that the use per acre in North Carolina and Virginia is relatively heavy as compared with some of the other States. Would that be explained in part by the fact that those States produce considerable quantities of tobacco, you think?

"A. I think, in part, yes. But they produce other things besides tobacco. North Carolina produces considerable cotton.

"Q. Yes.

"A. Virginia, not so much."

The extent to which it is found profitable to use fertilizer depends upon the cost of the fertilizer; that is one of the factors. Probably is the main factor.

From exhibit 320, taking North and South Carolina and Georgia, it would seem there was a material increase in the cost of fertilizer per ton in each of those States in 1925 as compared with 1924; but, on the other hand, the fertilizer used on cotton in each of those States was substantially greater in 1925 than in 1924. But the cost of fertilizer alone [fol. 637] would not be the entire argument. The amount of money that the farmer had received from his previous crop, and his condition regarding his debts, probably would also be one of the determining factors.

I think that those are perhaps the explanations of the fact, notwithstanding that in 1925, for instance, the average cost of fertilizer in North Carolina was $4.10 per ton higher than it was in 1924, nevertheless, the use of fertilizer on cotton in North Carolina increased in 1925 to 481,275 tons as compared with only 467,550 tons in 1924, although I had not analysed that on that standpoint thoroughly.

In some cases I should say that the cost of fertilizer plays rather a small figure part in the amount that the farmers use yearly; and perhaps you would pick a case that exactly fits those conditions. That is, where the use of fertilizer has become an established practice with the farmer, he has come to recognize its value in growing his crops, then the price of fertilizer loses some of its influence. That is, it is a part of his fixed practice to apply so much fertilizer,

regardless of fluctuation in price, and North Carolina being the heaviest consumer, has probably come around largely to that position. That is a point of education of the farmer.

"Q. Well, the same thing appears to be true from these figures in the case of South Carolina and Georgia, because if you will note that although the price in South Carolina was $29.50 in 1925 as compared with only $25.40 in 1924, yet the use in South Carolina in 1925 was very nearly 50,000 tons greater than in 1924?

"A. I think that is a recognition of the fact by the farmers that the fertilizer is a valuable thing to use."

All of those figures on my exhibits were obtained from a number of sources. The Bureau of Agricultural Economics, the Census Bureau, the Census is in the Department of Commerce. Well, all of the statistical agencies that we had in the Department, as well as checking them against the Fertilizer Handbook, which was in itself compiled from those same reports.

My Department has not made any investigation or study to my knowledge as to the reasons that have brought about the rather pronounced increases in the price of fertilizer, 1925, against 1924, as shown on these exhibits.

[fol. 638] The Department of Agriculture is not advocating any particular treatment of the rate structure under consideration. We are not here—I was not directed to come here as an advocate at all, but simply to furnish any information that the Department had; or that we could secure for the Commission's information.

I said it was at the request of the Secretary of Agriculture that the data that I have submitted in the instant case was prepared; the Secretary had the data prepared in response to a telegram from Mr. Cotterill directed to the Secretary, asking that a representative be sent. I had no purpose in mind when I determined to work up this data which I presented in this case; just simply to present the information along economic lines, and the history of the industry, was the only purpose in view. (Tes. 837-41.)

I have made no study to determine what, if any effects, the freight rates have upon the sale, distribution or use of fertilizer.

The Department has made no detailed study that I know of, to determine whether, during the periods when the price of fertilizer was cheap, that it resulted in increased use of that commodity.

Investigations on the subject have been going on now since 1913 to determine whether it was commercially possible to concentrate the plant foods in fertilizer, thereby reducing the bulk to be handled, and consequently reducing the transportation charge. There have been a number of results. It perhaps would require a statement something of the length I have already given to give you those results in detail. That matter had been under considerable by our Department, and we have had promising results.

"Q. Now, with respect to your Exhibit No. 311, that shows the total consumption of sulphate of ammonia, and 310 shows the annual production. Consumption being considerably less in 1923 than the production. Can you state what became of the excess, or the surplus?

"A. Why, that was exported."

There was an amount, I have not the figures for the imports of sulphate, but some sulphate was imported and [fol. 639] some exported, but the difference there amounts to about 100,000 tons, or a little bit more, 548 in one case and 436 thousand in the other.

Now, on Exhibit 314, in 1921, I show the production of 60-degree and 66-degree acid, and all other acid; that is higher grade that results, a higher degree than 66. 60 and 66-degree acid is not used in the manufacture of fertilizer, the more concentrated acids are not used for the fertilizer. In the subsequent years there were considerable quantities of high degree acid than 50-degree manufactured. There was no reason for not showing them except that this was shown this way in the statistics by the Census Bureau, as we got them. I had no reason in presenting them. In order to have the proper comparisons for the last four years, it would be fair to eliminate all but the 50-degree acid from the figure shown, but I have not those figures at hand. All but the 50-degree acid should be eliminated from the 1921 figures in order to make the comparison for the last four years fair.

With respect to Exhibit 315, they represent the values at the ports on the potash shown in that exhibit.

I think, of the Southern States, that North Carolina, in the last few years, has shown the greatest increase in the use of fertilizer. I can verify that from this table. Taking Exhibit No. 322 for example: Taking under Harvesting and Marketing, I show cost at $16.42. That covers the picking and ginning, any of the costs going in from the standing crop to its sale.

"Q. Do you know what it costs to pick cotton? It is usually done by the hundred in this cotton section, is it not?

"A. I suppose it is; I don't know."

I am unable to say regarding that, because the figures were prepared in the office of the Division of Statistical and Historical Research, and I cannot say what the value was given to the picking. I show for example, that the cost of cultivation where I use 60 pounds per acre is $3.99, and where I use 140 pounds the cost of cultivation is $5.76. That is not the amount of difference in the use of 50 pounds of fertilizer. One man may have quite different conditions to combat in cultivating, *and* those of another man. He [fol. 640] may spray his cotton, he may dust his cotton more. He may cultivate his land a good deal more, and he may prepare it better.

It just happens to be true that the farmers that have used the greater amount of fertilizer do intensive farming, and perhaps plow the cotton much more often, and hoe it more often than the man who uses less fertilizer; the better farmers use fertilizer.

"Q. And work their crops more carefully and more often?

"A. Better cultivation; they use better methods all around." (Tes. 841-46.)

These exhibits include the total consumption of materials and mixed fertilizers, so far as we had the figures; they purport to embrace the whole thing.

By Mr. Mohr:

"Q. Have you any further explanation about the showing on Exhibit 322? It indicates that the yield in the first

item., 60 pounds per acre, the amount set as fertilizer per farm, $98.61, in the last item you find 501-pound yield, and the amount expended for fertilizer, $97.41.

"A. No, I have no explanation to make, except that these are the figures compiled from the reports, in the first case, of 24 farmers reporting, and in the other case of six. It may be that the small number of six may be off somewhat."

I cannot say definitely regarding the States of Alabama and Georgia, but I think they are representative as a whole.

Redirect examination:

The sources of information from which these reports were obtained on this questionnaire were all of the statistical agencies in the Department of Agriculture, the Bureau of Agricultural Economics, the Bureau of Soil-, also the Census Bureau of the Department of Commerce. They secured their information directly from the farmers through questionnaires. These exhibits here are based on 20,000 questionnaires sent out to farmers throughout the cotton area, and the replies coming in were tabulated and the results are the exhibits.

[fol. 641] "Q. Now, doctor, with respect to your statement that the cost of fertilizer was at least some factor with respect to the amount used. I would like to read you a statement made by a previous witness, and ask you if you think that his reply is fairly illustrative of the point that you desire to bring out. That witness was Mr. Hutchison, a railroad witness, who was the general freight agent of the Columbia & Greenville Railroad Company, page 440 of the testimony at the Atlanta hearing. Mr. Gwathmey was questioning the witness himself:

"Q. Colonel Robman suggest- or asks why you did not use any nitrates this year, Mr. Hutchison? A. I will tell you; last year was a little bit hard with me, and I did not have the money to buy the nitrate of soda,"—is that about illustrative of what you had in mind?

"A. Yes, I think so."

I think it is a fact that last year, in 1924, with a lower price, the farmer could buy fertilizer on a credit, and this year the only way he could get it was to pay cash for it, and

pay higher price. The fertilizer industry is going through a reorganization. It is a fact, as far as his credit with the fertilizer industry directly is concerned, but he is still able to borrow money and buy his fertilizer through banks—through local banks or through agencies. The price that I gave for 1924 is the price that the farmer put on his questionnaire, and the question was not asked him whether it was cash or credit. That is the price he paid. (Tes. 847-850.)

By Com. Eastman:

"Q. Has the Department given any consideration to the question whether or not the credit arrangements for the sale of fertilizer are unduly burdensome?

"A. Why, the Department has felt that the banking engaged in by the fertilizer industry was not a proper function, and the industry now has come to the same conclusion.

"Q. You think that the credit was being furnished in some way to a greater advantage, and less burden?

[fol. 642] "A. Well, I, independently, cannot express an opinion on that."

The prices that I show for 1925 are presumably the prices that the farmer has paid if he goes in and buys it. I don't know whether or not the average small farmer during the current year, who was unable to pay cash and had to arrange to get his fertilizer in March, and pay for it in November, under the old custom throughout this section, did not pay from 5 to 8 dollars per ton for the use of that money from April to November, than the man that was able to pay cash for his fertilizer. (Tes. 850-51.)

Yesterday I stated that the advent of the boll weevil had considerably disorganized the fertilizer industry. I do not know as to the detail of the effect of boll weevil on Georgia, but Georgia and South Carolina both dropped off considerably in their consumption of fertilizer, due particularly to the infestation of the boll weevil. They had to use other methods, such as dusting the cotton to keep down the boll weevil, and part of their expenditures were in that direction.

On previous years the fertilizer consumption in the State of Georgia was in excess of that of the State of North

Carolina, predicated on previous years; North Carolina is now in excess.

Referring to this table, I find that the decrease in Georgia in 1923, from 1913 consumption, was 39 per cent, but Georgia is regaining its old position. I would say this, that Georgia is tending to come back rapidly to its former position—its former consumption, as to whether it would pass North Carolina, I would not venture a prophecy, because North Carolina may continue to increase. I cannot tell exactly what the ultimate relationship may be, but at least the total net volume of the tonnage consumption in the State of Georgia is now rapidly tending towards restoration of normal conditions. In North Carolina there is a considerable consumption of fertilizer in the growing of tobacco. The use of fertilizer in the successful growing of tobacco is a practical necessity.

"Q. Has the range of your observation concerning the uses and distribution of fertilizer been such as to bring [fol. 643] your attention to the fact of the very remarkable increase in the tobacco raising in the State of Georgia?

"A. Why, I have not given any particular attention to that."

I know that tobacco is being grown in Georgia to a considerable extent. If that movement accelerates, it would be a factor further tending to affect the relative fertilizer consumption of Georgia as compared with North Carolina.

I am not qualified to say that in the State of Georgia today that the farmer-, *or*- perhaps in the best conditions and the most prosperous condition that they have been at any time since the War.

"Mr. Ignatius: I would like to ask the Doctor a question in regard to your Exhibit 321.

"By Mr. Ignatius:

"Q. You show in the first four columns cotton farmers reporting purchases of fertilizer. Can you say whether the reports sent to you by the farmers indicated the character of fertilizer used, whether a commercially mixed fertilizer, or whether a locally mixed fertilizer under cooperative plan, or whether mixed on the farm?

"A. No, it would not indicate."

My department accepted those reports as covering all kinds of fertilizer that may have been used by the farmers, regardless of its make-up or source. Those forms of reply did not indicate the character of the materials used in the fertilizer used. I think I have a form here, if I can locate it. The questions asked on the form were under the heading of "Commercial Fertilizer Used on Cotton Acreage This Year," and Column A, "Proportion of the Cotton Acreage Receiving Fertilizer this Year," and Column B, "Average Number of Pounds Applied Per Acre When Used," and Column C, "Average Value Per Ton of Fertilizer Used." I would not interpret the reference in my form to the commercial fertilizer used by the farmers as necessarily indicating only the commercially mixed fertilizer bought from the fertilizer factories. Cottonseed meal is considered as a very excellent fertilizer, and especially so in tobacco.

[fol. 644] As a general rule there is more fertilizer used in the growing of tobacco crops than there is in cotton or corn. The same is true on truck, as indicated on my exhibit on Florida. When a State, or any community, has passed from the production of a cotton crop into a truck crop or a tobacco crop, it would have a tendency to increase the consumption of fertilizer. (Tes. 851-856.)

(Witness excused.)

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EDWARD A. O'NEAL was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

My name is Edward A. O'Neal. My official residence is in Montgomery, Alabama. I am vice president of the American Farm Bureau Federation. In this proceeding there has been delegated to me the responsibility of submitting a carefully prepared statement in behalf of the various farm organizations whose appearances have been entered here. The interest of the farm organizations in this proceeding is both direct and indirect. A quite considerable part of the fertilizer used in the various Southern States is purchased from the manufacturers by the

farm bureau organizations under a centralized system of cooperative trading. For instance, last spring the Alabama Farm Bureau Federation purchased and distributed to its membership in Alabama approximately 81,000 tons of fertilizer of all kinds. Hence as purchasers of fertilizer we are directly concerned in the transportation costs in the aggregate.

Secondly, the farm organizations act in a representative capacity in a number of fields of activity affecting the successful development of our agricultural enterprises. Educational and experimental work is done by the farm organizations in behalf of their membership and agriculturists in general. Our organizations and activities are available in matters of this character for the purpose of attending to the more general interest of the member of our several associations.

[fol. 645] Of the articles transported by railroad for use in agricultural pursuits in the South it is very probable that fertilizer is the largest and most important single item. The relationship which that article bears to successful agriculture is immediate and so direct as in large measures to control the tonnage of agricultural products transportable by the carriers and indirectly to control their total tonnage by reason of the influence which successful agriculture has upon general conditions of prosperity throughout all lines of business in the South.

The cost of fertilizer bears a considerably important ratio to the total cost of farm operations and in turn transportation costs effect in quite an appreciable measure the cost of fertilizer.

From what has just been said by me it should not be understood that any effort has been made to leave an impression that any permissible change in average transportation costs on fertilizer either upward or downward as a result of this proceeding would automatically control the welfare of the farmers of the South. While the figures later to be submitted will sufficiently indicate the considerable extent to which transportation costs affecting fertilizer are of practical significance in terms of transportation cost per fertilized acre yet no effort is here being made to say that the volume of fertilizer to be consumed would be greatly more or less dependent upon the measure of freight rate levels which will result from this proceeding.

It is equally important and desirable to emphasize that the Southern farmers are not in this proceeding asking for any charity or benevolent dispensation in the way of reduced transportation costs to which they may not otherwise be entitled. There is no apparent use in emphasizing the distressful conditions which did prevail throughout the South with respect to agriculture only a short while ago. Nor on the other hand, would it be advisable to assure that what may seem to be an apparent condition of general prosperity now prevailing is permanent or uniform.

We do say, however, and respectfully ask this Commission to take into account the fact that in its work of gradually remaking the freight rate structure in this country the Commission should give a fair regard to the peculiar [fol. 646] uses of different articles and so distribute the total transportation burden as will impose a fair relative part upon agriculture. In other words, in considering the proper disposition of this case involving as it does an article of direct importance in agriculture we urge the Commission to find from the evidence the extent to which sound national economy would justify the making of as low rates as consistently can be done on this particular article. We certainly do not understand the point of view of railroad executives in undertaking to secure the equivalent of general advances on fertilizer in the South and we shall depend upon the detailed evidence to indicate the extent to which fertilizer rates might properly be reduced instead of increased.

It is further desired that through me the following statement shall be made: In the conduct of this case there has been a coordination of activities in a very large degree. Our organizations have accepted the tender of the fertilizer associations to assume responsibility for a considerable amount of technical data. The interest of the United States Secretary of Agriculture and his Departmental Executives has relieved us likewise of considerable burden of preparation which otherwise we would have assumed. Moreover, our various State organizations have cooperated closely with the different Southern State Commissions and with other interested elements in the case.

In view of such arrangements the evidence has been greatly simplified and repetition avoided. If toward the close of this hearing it should appear to the presiding Com-

missioner and the Examiner or any of the parties that the record is deficient as to any matter which it is within our power to supply, we will be very glad to take the proper steps to secure the desired information. (Tes. 856-60.)

Cross-examination:

I said that our cooperative associations buy and distribute to farmers who are members of the associations. The farmers' bureaus buy largely materials in Alabama, but in other States they buy the mixed fertilizers I understand. I am not familiar with other States, but we do not do it very largely in Alabama. In Alabama the farmer does largely his own mixing. Our bureau buys the mate-[fol. 647] rials and distributes them to the farmer. The farmer does the mixing. There is quite an economy in the practice, in preference to buying the completed fertilizer direct.

Redirect examination:

We do not purchase phosphate rock and sulphuric acid to make acid phosphate.

I casually followed the evidence of Mr. Davis to some extent. In one of the exhibits, returns from questionnaire were given, which indicated the cost of farming in Alabama among other States.

I think that those statistics shown in that exhibit as to farming costs are fairly typical of Alabama; we have worked out in Alabama with our Agricultural College a plan that it is advised for the farmers to use, under which the farmer used fertilizer. I am sure that the Doctor got his data from the College. The College directly getting a great deal of the information itself, and supplemented with the information that he would get individually, from the Department at Washington, I am sure that it would be as accurate as it is possible for a man to get that, without examining carefully and checking those figures. I have all of those figures, and if necessary, if you would like to have them here, we can have a witness, one of the men from the College, give you the data.

It is entirely feasible for the farmer to buy such material as to mix, himself, which would result in getting a mixture which would analyze what he wanted, and elimi-

nate paying freight on fillers to the farmers. He would get just as good results that way as he would by buying the mixed fertilizer; he gets better results, as far as any data that I have. (Tes. 860-64.)

(Witness excused.)

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A. D. Strobhar was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

My name is A. D. Strobhar, I am president of the Southern Fertilizer & Chemical Company, residing in Savannah, [fol. 648] Georgia. In addition, I am a member of the executive committee of the National Fertilizer Association, having been elected from District No. 6, which embraces this territory. I have been especially delegated in this proceeding to represent the president of the National Fertilizer Association, Mr. Carter, who was compelled to be absent by reason of business necessities.

The reasons for my presence here are as follow:

First, it is desired to emphasize the fact that other representatives of the Association and the industry itself are participating in this proceeding by express authority and direction of the executive management of the fertilizer industry and that as to most of the details which will be dealt with by such other representatives it can be depended upon the views expressed by them have received executive sanction.

Secondly, it should be understood that in last analysis the fertilizer industry has no interest in the transportation costs in the aggregate excepting so far as the interests of the consumers are of moment to the industry. Irrespective of the form and terms of sale it may be considered that the total transportation costs of raw materials and distribution of finished products are expressed in the ultimate consumer prices. So far as concerns the manufacturers of fertilizer, their direct interest in the transportation rates is that there shall be uniformity and that as early as possible there be an adjustment of inequalities

now existing. But so far as concerns the total transportation costs the interest of the industry is the same as that of the consumer, namely, to assist in a just determination of such reasonable transportation costs as will assign fertilizer to such rating as recognizes its peculiar position as an agricultural necessity.

Thirdly, it is desired through me to emphasize the fact that the fertilizer industry has been completely deflated with the exception of transportation costs. While in recent times fluctuations of prices have been material they appear to have established themselves in large measure around the present figures. If transportation costs on fertilizer were generally reduced, the ultimate consequence would be lower [fol. 649] prices at least to the extent of the reductions in cost. Correspondingly, if transportation costs were again to be advanced, the ultimate consumer would equally have to stand the difference.

The executive secretary of the National Fertilizer Association has complied the following information, from the Government statistics:

"Government figures for the very latest years are not available. A comparison of 1919, 1921 and 1923 will show clearly, nevertheless, what has happened during such recent period. According to the figures of the Department of Commerce, the average value of fertilizer per ton in 1919 was $34.54; in 1921 it had dropped to $29.17, and in 1923 it had dropped to $23.48. In 1924 there was a still further drop, while in 1925 improvement took place which, however, has probably scarcely restored the 1923 level.

Not only have freight rates remained high, but labor costs have remained high, and in some cases the important raw materials upon which the manufacturer of fertilizer depends have remained above pre-war levels. At the same time the farm products upon whose purchasing power the ability of the farmer to buy depends, have had a purchasing power as low as 68 per cent. of pre-war, and even with the recent improvement are still between 90 and 95 per cent. of pre-war. Freight rates, per contra, range roughly 50 per cent. above pre-war.

1920 prices of fertilizer materials were 100 per cent. above pre-war. 1924 prices were 6 per cent. below pre-war;

while 1925 prices, speaking of the fiscal year, were approximately 5 per cent. above pre-war. In this connection it must be borne in mind that these are wholesale prices, and that the general level of wholesale prices of all commodities is between 55 and 60 per cent. above 1913, which is usually taken to represent pre-war conditions."

The Government itself fully understands the industry has been a very precarious one and many millions of dollars have been lost in it during recent years. I do not understand the circumstances compel or justify me in detailing the financial position of the fertilizer industry which pre- [fol. 650] vailed until very recently, nor would I be justified in going very far in a discussion of the present financial conditions of the important companies. Suffice it to say, however, that the investing public has expressed its judgment concerning the values of the securities of fertilizer companies at this time through the current market quotations, and examination of which will sufficiently disclose the low figures at which such securities may be bought.

Other witnesses have especially prepared themselves to assist in this proceeding to the extent of supplying technical data of various sorts. I have not undertaken myself to be prepared to discuss freight rates in particular nor the immediate issues in this proceeding other than as I have already done. (Tes. 864-868.)

Speaking broadly, it is true that factories located at port cities have what is regarded as a cost advantage. The prices along the coast—at the coast producing points, those are the basing—the market prices are made as based on the Coast manufacturing points. Generally speaking, when fertilizer is purchased at a Coastal producing point, it is purchased on the basis of f. o. b. shipping point, the purchaser paying the transportation rate from such point to destination—it is added to the price. In the case of the factories located in the interior, they are compelled in the adjustment of their prices, to meet the competitive prices fixed by the port communities. In effect then it is the same as if to say that an interior factory sells its fertilizer on the basis of the port price, plus the transportation rate to the interior destination. If, then, there were to be a change upward or downward, in the line-haul rates on fertilizer

from a port city to an interior destination, such chang would at once affect the total price paid by the consume purchasing from such port city by the amount of such por rate change. If the purchase was made from an interio point, such interior price is made on the price, plus th price from the port. It would be the same. (Tes. 868-9.)

Cross-examination:

That method of determining the price has prevailed good many years, based f. o. b. port. Some years ago ther used to be a differential $1.50 or $1.75, based on interio points, but for a good many years, the price list comes ou f. o. b. ports, Savannah, Charleston, etc.

[fol. 651] "Let us just take the preceding year. Take las year, for example, the year 1924.

"A. Yes.

"Q. Did that have anything in the world to do with tha price? Is it not a fact that your prices at the particula point would change every day, and one dealer would no know what the other man was charging?

"A. 1924 cannot be used as a comparison.

"Q. Well, that is a fact, is it not?

"A. 1924 cannot be used; it is a fact it cannot be used a a comparison, business was demoralized completely.

We ship into South Carolina. The freight rates intra state in South Carolina were changed by the State Railroa Commission. After that change, I could not say if ther was any corresponding reduction in the price to the farme or whether immediately after that change there was an ad vance of a dollar in the price. No, in 1924 the later—at th end of the season of 1924, the prices were lower than at an time during the season. In the spring of 1924, quite so.

There was no market price of fertilizer in the spring o 1924; there was an effort to liquidate what we had. I kno of sales made in April, 1924, at a lower price than had eve been made, and stuff was shipped into South Carolina, an somebody had dumped their stuff on the market, and yo cannot take it as a criterion. This year we hope we hav got just the opposite condition. I would not say tha throughout the period of this year, all fertilizer dealers, a

of these mixing plants that we have been referring to h
several hundred of them in Georgia, all had one pric
the same comomdity, and there was no varying this y
I have heard of some varying in the price this year.
not as a general rule. There was a very good market p
for the spring of 1925, a very firm market price but,
does not mean to say that the mixing plants do not v
from it in price or terms. (Tes. 869-72.)

I am not prepared to say whether the bigger conc
varied from it or not. It was considered that they
I maintained the market, so far as my company
concerned. I lost business by doing it. My con
is The Southern Fertilizer & Chemical Company.
tonnage reduced in 1925 as compared to 1924, becau
[fol. 652] maintained the market. That is what I bel
At least, it was reduced, and I think it was because I m
tained the market. We are an independent corporation

My corporation, the Southern Fertilizer & Chemical C
pany, has no understanding or agreement with any
cern as to maintaining the market price.

We maintained the market price. There was no ma
price in 1924. My market price is the price list that I
out, and that seems to be the information that I could
the current market. I could not say it was put out, I d
know who puts out the market price list, but we acq
one, there was a market price list put out in 1924, which
$23.00. I have no objection to saying that ever since I h
been in business I have been getting a price list from
of the largest companies every spring, and I consider
the market price as long as it is generally maintained.
is the one I referred to, what I called the market price, w
I maintain that price list that I receive, our company
ceives from one of the large factories. I think that ma
price list which I received this past season from that
tory was $1.00 higher than it was in 1923 and 1924. W
I received that market price list, and subsequent to
time, I have had no understanding or instruction from
one, or any agreement with anyone, that that list woul
adhered to. No one could give me instructions in
regard. I am not prepared to say whether or not thro
out the territory that I am familiar with each one of
fertilizer companies, not only the smaller companies

also the four larger companies, have adhered to that market price as originally issued in the past season. The market was very firm during the year. You would hear reports that the price was lower here or there, but never of sufficient moment to cause me to meet it. There was by no means no such variation in price this past season as there was in 1924.

"Q. Now, it is a fact, is it not Mr. Strobhar, that there has been no change in freight rates in 1924 and 1925, as compared with 1924 shipping season?

"A. The past shipping season, I think the freight rates remained the same."

[fol. 653] Our price list for the spring of 1925 I think it was $1.00 per ton higher than the spring of 1924. Speaking from the standpoint of my company, the Southern Fertilizer & Chemical Company, my primary interest in this proceeding is to get equality. I stated that. That is my direct interest in it. I ship into South Carolina at a disadvantage to my competitors; I have to equalize at Charleston. There has been same price f. o. b. Charleston as f. o. b. Savannah, and if I ship an equal number of miles up into South Carolina, I still net less than the Savannah price, or considerably less than my Savannah prices, although the distance from Savannah may be shorter than from Charleston. There is inequality there.

When I say I want equality, I mean by that uniformity.

"Q. Do you want the rates on a mileage basis?

"A. Yes, uniformity, that is where it affects me directly. Of course, we want our customers to get as low a price as possible.

"Q. But you would like to have the rates determined on a different basis?

"A. It costs me a good deal of money every year on account of inequalities in freight rates, Savannah as compared to other points." (Tes. 872-876.)

Following that reduction by the South Carolina Commission in the rates intrastate in South Carolina, with no change in the rates from Savannah, I labored under rather severe difficulty, and still am; that is what I am complaining about.

I say that is my direct interest in this thing.

"By Mr. Cotterill:

"Q. May it fairly be said, Mr. Strobhar, so far as you know, it is the point of view of the executive committee of the Association that it is quite important, as soon as possible, to substitute a uniform mileage basis on fertilizer for the present, more or less jumbled hodge-podge of rates that exist?

"A. They are important, very important."

If it could be done by January, it would be in time to help us a great deal.

[fol. 654] "Q. More or less reference seems to have been made by an assumed advance in your price in 1925, compared with the list price for 1924. I believe you say that the difference between the price list was $1.00 per ton?

"A. I am quite sure that is right, sir."

The price conditions in 1924 were abnormal. During that period of time, I think I can say that the solvency of the industry was virtually jeopardized. I think one of the largest companies was put into receivership as a direct consequence. Others went in and, others were threatened. So far as I knew, practically every company lost money in operations made an operating loss. Regardless of a comparison between those price conditions in 1924 and the list prices in 1925, you correctly understand that the list prices in 1925 substantially represent the pre-war level of the fertilizer, with the price difference accounted for in transportation costs, except that labor is higher. Bags are higher, and one or two things are higher. The margin, I should say, is no larger, if as large. I think the prices themselves are fairly comparable with pre-war prices. I think a higher transportation cost and certain other added elements to pre-war costs which are still in the industry. That is true, regardless of any difference between 1925 and 1924 prices; no doubt about it.

The Federal Government, through other Departments, has more or less continuously kept itself in touch with the fertilizer industry with a view of detecting anything which resembles a price-fixing agreement. There has been almost an annual investigation. One of the representatives spent three days with me just a month ago, and a year previous to that they went through my files. It is

a fact that the industry is under the constant supervision of various Governmental Departments with the distinct object in view of detecting anything in the nature of a price-fixing agreement, with consequent prosecution, if any agreement of that kind were made. I think some of the large companies are pretty well under observation or direction of the Department of Agriculture; I think so, I don't know, practically all of the time. No prosecutions have been instituted yet; a clean bill of health every time they look at it. (Tes. 876-879.)

[fol. 655] Cross-examination:

It is a fact that you take almost any point in Alabama or Georgia, any country station throughout this year, and if you take a price on 10-2-2 fertilizer delivered at the station from any company, you got pretty much the same price to a penny delivered there. I say there was a general market. I do not mean there were no exceptions.

"Q. Well, there was no exception in my case; I am speaking personally on that."

"A. There was a stable market."

"By Mr. Gwathmey:

"Q. Mr. Strobhar, figures have been introduced here showing that the average price of fertilizer in Georgia in 1925 was $31.60 per ton, and in 1924 $27.00 per ton, a difference, or an increase, 1925 over 1924, of $4.60. If your market list price was advanced only a dollar a ton, 1925 over 1924, where did that difference in the amount of increase in cost to the farmers come in.

"A. Suppose we lost $4.00 a ton in operations in 1924!"

I spoke of the dollar as the price list, what we started at, but demoralization took place. The effort to liquidate the stocks. I did not say that the figure of $1.00 represented the amount of the difference in actual price of the fertilizer, 1925 over 1924. I said at the close of the spring of 1924 to the lowest price any part of the season. Another reason I know that lowered the price, the people had to sell, the banks were forcing them, I presume.

I did not hear the testimony yesterday in behalf of the Southern States Fertilizer Company, but I can imagine

what it was; the situation was the same. As to whether the situation with respect to the South Carolina rates was the same in the case of my company as in the case of the Southern States Fertilizer Company; I think it hurts me more so because I have a large percentage of my business that is down in South Carolina, and I had more tonnage than they had, I seemed to be unfortunate in having it in that section where discrimination seems to be greater per ton. There [fol. 656] is, in my opinion, undoubtedly an unjust discrimination existing there, which has resulted in damage to me, and on the other side of Charleston we will find comes into Georgia, passes Savannah at the same rate of freight, that we pay, and it ought to be straightened out as quickly as possible.

"Q. Have you suffered in any way from a like discrimination on account of the Alabama State rates?"

"A. I do not do business in Alabama, that is, personally; my company does not."

"By Mr. McGehee:

"Q. You spoke about the condition of the fertilizer industry and the hard times that they have gone through and I know that that is true. But I just wanted to ask you if that was not a result very largely of extensive sales and unwise credit in the past few years; if that was not one of the factors, inability to collect your money?

"A. I would not say unwise credits, sir, because the credits were wise, but the farmers could not pay. There are millions of dollars that they owe today, and I don't know when it will ever be paid, but we need to help the farmer all we can, but there have also been serious operating losses." (Tes. 879-82.)

I do considerable business in Georgia. It is not increased proportionately where I have an advantage for equal distance over plants in South Carolina, that I do business in Georgia, or plants in Alabama doing business in Georgia. I just mentioned that in South Carolina. If you are familiar with Cordele, Georgia, I will cite the same rate applies from Charleston to Cordele that is from Savannah to Cordele. I think you can pick out others, so that there is no reciprocity about it, we cannot get into Carolina under that

basis. I think there is a small differential there at Vidalia, 25 cents per ton, something like that, a dry mixing plant at Vidalia.

I sell very little in Southwest Georgia; I do not get over there as much as I should. I don't know about Alabama, I believe that was your question. I don't know about Alabama, but I cannot speak of my own knowledge. I do not find where I have had any advantage over South Carolina shipping into Georgia.

[fol. 657] The principal concerns that ship from Charleston? Well, in Charleston, two of the large companies, American Agricultural and Virginia-Carolina have factories, but the bulk of the business is done by so-called independent companies, the Planters Fertilizer Mixing Company and Etowah Fertilizer Company, and the Reed Phosphate Company, Maybank Fertilizer Company, Merchants Fertilizer & Phosphate Company, McCole Fertilizer Company, and different mixing plants, two or three or four mixing plants. (Tes. 882-83.)

(Witness excused.)

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H. R. Bates was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

My name is H. R. Bates, residence Atlanta, Georgia, manager of the Manufacturing Department of the International Agricultural Corporation. I have engaged in that, or a similar capacity 31 years. The particular company with which I am connected has plants located pretty well throughout the Southeastern States. We are operating, as we call them, 100 per cent plants, 24, and about as many more joint corporations, in which we have a 50 per cent interest. By reason of that diversity of plant operation, the range of my own personal experience in operating management, it may be understood that the facts, as they seem to pertain to our operations, are fairly typical of the industry as a whole.

(Certain statements were thereupon received in evidence and marked "Protestants' Exhibits Nos. 324 and 325, Witness Bates.")

It has been indicated through a preceding witness that the plant foods are three in number. The first of these exhibits, namely, 324, shows on sheet 1, chart 1 in the left-hand brackets, what those plant foods are.

[fol. 658] "Q. Opposite that bracket does there appear the more technical description of the commodities which contain those plant foods?"

"A. Those are the three classifications into which we divided our shipments."

In the various consuming territories, by reason of the different agricultural products sought to be produced, the productions of the different kinds of plant foods are different, one territory compared with another. I have indicated in the last bracket of chart 1, the approximate division as between the proportions of the plant foods in the mixtures used in the different sections of the country.

Coming down to Chart 2, I have in that chart sought still further to refine the classification of the chief commodities containing these various plant foods, assigning them by brackets to the chemical descriptions of them.

The ammonia is simply another form of nitrogen. Some states express it as nitrogen, and some ammonia; it is the same for agricultural purposes. Nitrogen is the plant food. The ammonia is simply a first stage in the oxidation of nitrogen on up to nitric nitrogen, which is the only form in which the plant really can take nitrogen as a food. Having shown the principal substances containing these various plant foods and their technical classifications, I have in a general way shown in that Chart 2 the principal sources from which those different materials are obtained.

"Q. Dropping down now to Chart 3, which pertains particularly to Southern Territory, have you sought to set forth the formula employed in the making of a typical or average analysis of a well known and recognized complete fertilizer?"

"A. That is broadly the average of the mixed goods shipped last year, containing the three plant foods."

That formula would be most readily identified by: 10-3-3. That may be, then, known as a 10-3-3 mixture. That means

that it contains 10 per cent of available phosphoric acid, 3 per cent ammonia, or equivalent of 2.47 nitrogen, and 3 per cent potash, 320. That would then mean that in a ton of mixed fertilizer the preparation of which a formula consisting of 10-3-3 was used, there are those percentages of available chemical ingredients.

[fol. 659] "By Com. Eastman:

"Q. Can you tell me how it happens that nitrate of soda seems to be the source of ammonia, and also the source of sulphuric acid?

"A. It is used in the manufacture of sulphuric acid, in the process."

Nitrate of soda is used in the manufacture of sulphuric acid as a carrier of oxygen in the process. There is a small percentage of nitrate of soda used in the manufacture of sulphuric acid; about 4 per cent of the sulphur charge. Irrespective of the smallness of that percentage, it is a curious chemical fact that then the sulphuric acid in turn is later used with the phosphate rock, and then that mixture, mixed with nitrate of soda again. Hydrogen and oxygen are added to the sulphur to produce sulphuric acid.

The fact that Dr. Davis referred quite frequently to sulphur and pyrites in the manufacture of sulphuric acid—doubtless it was not intended by him—there was in that respect an omission to mention the additional and very important source of supply of sulphuric acid as the by-product of copper smelting operations, which operations are located in the so-called Ducktown Basis of Tennessee. (Tes. 884-88.)

"Q. In a substantial way of speaking, may it be said that the port plants, and those immediately adjacent to the ports, more generally employ sulphur and make their own sulphuric acid?

"A. I think I would say that some of them use sulphur, and some of them use pyrites at the ports."

As you go back into the interior, there is a greater percentage of use of by-product acid obtained from the copper smelting operation, by reason of the location and cheaper transportation costs. The principal source of pyrites is

Spain. There are some pyrites mines in Virginia, but I don't think they are very profitable, at least. I doubt even if they are being worked. You will find pyrites mines right outside of Atlanta, Georgia, on the same vein, but they are not being worked now, and you will find pyrites mines in Canada and Western Minnesota, but they are not being operated.

[fol. 660] If at a given moment the desire were to manufacture a mixture known as 10-3-3 at all manufacturing points in the South, such a mixture could be produced, and would be produced by the use of different materials, perhaps, at each manufacturing point. In other words, it is the ultimate chemical content which is sought, and may be obtained through the use of various kinds of materials.

At the bottom of this exhibit No. 324, where it says formula of materials—I don't mean by that that the formula contains all of those; that is simply a typical formula. For instance, we might substitute for tankage, a little cotton-seed meal, or use some foreign bean meal or nitrogenous substance, any of the materials that are listed above, could be used as a part source of the ammonia supplied by the tankage.

"Q. Would it be necessary to have four elements containing ammonia, or would one be sufficient?"

"A. Well, we would not call that a well-balanced fertilizer, no."

In the composition of this particular formula, we tried to select first a typical formula and second to the selection of materials to be used in making up that formula which would likewise be different. Three per cent ammonia means that in the various materials, in the formula of materials, there are 60 pounds of plant food. There are three units, a unit being 20 pounds. A unit is 1 per cent of a ton. There are three units in the ton of 60 pounds of plant food. That 60 pounds of plant food is contained in that tonnage of nitrate of soda, fish scraps, and sulphate of ammonia, that is in the ton.

"By Mr. Quirk:

"Q. In your Exhibit 324, you show source of supply of cyanimid at Niagara Falls, Ontario. You don't mean by

"A. No, no, there is a foreign cyanimid that comes in, yes. That might have been added there, perhaps just as well added. Cyanimid comes in from Germany, some of it being imported."

[fol. 661] There was undertaken in Exhibit 324 and 325 the effort to ascertain the existing transportation costs in the assembly of raw materials and in the distribution of the finished product to 100 miles, of the average mixture, known as 10-3-3, consisting of the average typical ingredients, and a considerable number of representative manufacturing points in the South. I computed a supply of the proportions of the different materials, which at the different manufacturing points would be employed in the making of such mixture as we are dealing with here. (Tes. 888-892.)

On the basis of those representative tonnages, the existing transportation charges were computed by the traffic department. The combined result was expressed in Exhibit 325. In such exhibit a complete separation has been made as between acid phosphate itself, regarding it as a fertilizer, and a 10-3-3 mixture, in which acid phosphate is used, so that in examining the exhibit, an impression may be derived as to the total assembly and distribution cost of acid phosphate or the mixture at these various and numerous different manufacturing points. While the resulting figures vary in considerable measure, the exhibit first establishes an impression that so far as concerns the transportation costs the port plants have an apparent cost advantage. Taken as a whole, and still confining the discussion to this 10-3-3 mixture, it will appear from the exhibit that on the average taking a higher and a lower transportation cost at plants, a figure in the neighborhood of $5.00 will represent something like the general average in an outbound transportation costs throughout the south in the making and distribution of a 10-3-3 mixture at the ports, and something higher at the interior.

By Com. Eastman:

"Q. Now, on Exhibit 325 I notice that at Charlotte, North Carolina, sulphuric acid comes from Columbia, South Carolina—what is that, Columbia?

"A. This is in this particular case, the Royster plant, I presume, in which they ship sulphuric acid from their Columbia plant to their acidulating plant at Charlotte."

[fol. 662] They produce the sulphuric acid at Columbia. The freight charge involved in getting the material to Columbia is in there. I understood this to give the freight charge shipping the sulphuric acid from Columbia to Charlotte.

"Mr. Cotterill: I am informed, Mr. Commissioner, that in the case of the item you have mentioned, there was not included the cost of transportation on sulphur to Columbia, and the computation expressed alone the transportation cost on the acid from Columbia to Charlotte. In that respect, there is an omission.

It so happens that in the case of the Charlotte figure giving the operation of the Royster Company, it was concluded that a cheaper transportation cost could be expressed by the assumed movement of sulphuric acid from Columbia than from Copper Hill, whereas, in the case of Columbia, it is the assumption, say, that the cheaper transportation cost would be produced by the movement of acid from Copper Hill to Columbia.

I did not work up all of these figures; they were worked up by our traffic department. In the making of these computations the effort was made to determine approximately the lowest transportation cost which would be available under the conditions as they exist.

By Com. Eastman:

"Q. Now, you spoke of the lowest cost being at the ports. Does not this show that the cost at Atlanta is lower than at Charleston?

"A. On page 4 it shows the average cost—you mean on the mixed goods?

"Q. Yes, Atlanta $4.86, Charleston appears to be $5.18 on page 2.

"A. I think that is probably due to the fact, I am not a traffic man, Mr. Commissioner, but I think that is probably due to the fact, if I might answer that question, on account of the low acid rate from Copper Hill to Atlanta, which is one of the lowest rates we have, and it works out that way

at that particular point. My memory is that rate is about 2½.

[fol. 663] "Q. The lowest cost that you have seems to be at Mobile.

"A. That is probably due to the low sulphur cost, right across from the Texas fields. We get sulphur across there via boat." (Tes. 892-96.)

"Mr. Cotterill: Mr. Commissioner, I am just now informed of an error which I myself made, which probably tends to a little confusion there. It seems that in computing the outbound transportation costs, the exhibit was not based upon a uniform movement of 100 miles, as I had thought it was, but on the contrary was based upon a weighted average distribution from the plants that were used for the purpose of the test. That being true, I rather think that a complete understanding of the exhibit would make it wise to furnish this record with a supplement of those average distances for the outbound movements, which were used in this composition cost; otherwise, it would not easily be possible to make the comparisons which we had in view, and I will undertake to do that."

From my supervision of the management of these various plants, and contact with the industry, I would not say that at the time of the peak movement of fertilizer, such movement badly conflicts with any other peculiarly heavy movement which the railroads at that time are attempting to take care of. I should think the contrary is true; that during the time of the heavy movement of fertilizer is the period when the railroads, perhaps better than any other, can accom-odate themselves to that peak movement of fertilizer.

Other than in the case of one or two of the port cities, it has not been my experience that during the fertilizer shipping season the railroads accumulate empty cars for accom-odating the fertilizer business, and return them empty to the shipping points; I think they have the cars drifting in as we want them. Other than one or two or such port cities, I do not know of any place at which fertilizer is manufactured and shipped, where it is the practice of the railroads extensively to accumulate and bring in empty cars for the particular purpose of handling that movement, and

then upon the discharge of the lading in those cars, r
turning them back to that fertilizer shipping point. It
true at certain seasons of the year that as to a substa
[fol. 664] tial percentage of cars used by the fertilizer co
panies in the shipping of fertilizer, that percentage of ca
has come first to the fertilizer plant under lading wi
materials depending also upon market conditions. The
are several factors that would govern that. It depend
upon how a large concern has bought its materials, wh
deliveries they have requested. They always like to hav
I think, some deliveries in the spring season, so as to ha
those cars coming in. It takes that much burden off t
railroads. It would appear from exhibits introduced by
that in some cases there is used sand in a given amount
the making up of a mixture. To explain the function
sand when so used: in figuring a formula, when you sta
out to use certain materials, and obtain a certain analys
we will say that of the ten it takes 1,900 pounds of the va
ous materials to give you the pounds of plant food to co
respond to a given grade, percentage grade, like a 10-3
then the balance of that ton is made up usually from fil
sand, or some other material.

"Q. Now, when you use the term "filler" in that sen
you mean the artificial addition of a non-fertilizing su
stance for the express purpose?

"A. Non-deleterious substance, the State calls it.

"Q. For the express purpose of regulating the perce
age of chemical content to the total number of pounds
the ton?

"A. That is correct."

When so used the term "filler" is to be understood
that particular way, as a make-weight. The extent of
use, will vary some with the grade of the mixture. Un
any circumstances, the proportion of its use in that way
comparatively small. As to whether it is a practice wh
is to a substantial extent diminishing as time goes on
think in last three years the average grade shipped is pr
ably given from a 10-2-2, to a 10-3-3, and using the sa
materials now that were being used then, it would of cou
decrease proportionately the amount of filler.

"Q. Now, the term "filler" in a more popular sense, apparently is what leads to the confusion about it, and goes to the question asked by the Commissioner. When you are [fol. 665] speaking of a mixture of 10-3-3, you mean a percentage of what?

"A. Let me answer your question this way. When I speak of a 10-3-3, as a 10-3-3, I mean that in that compound there are 320 pounds of plant food, and the 320 pounds of plant food are derived from these various materials. I could figure out a formula and answer his question and show him why we speak of it as 3 per cent.

"Q. Yes, just one second.

"A. I will try to answer that question, the percentage, 10 per cent available phosphoric acid means that in a ton there will be 200 pounds of available phosphoric acid. Now, if the product that I use to get that 200 pounds itself contains 16 per cent, then I will use 1,250 pounds, of 62½ per cent by weight of the ton, but I will have 10 units—always think of units as present. One unit is 1 per cent of 200 pounds; 10 units would be 200 pounds, and 1,250 pounds of acid phosphate analyzing 16 per cent gives me the 200 pounds, or 10 per cent. Do I make that clear?

"By Com. Eastman:

"Q. 200 pounds of what?

"A. Available phosphoric acid a ton." (Tes. 896-901.)

The average analysis of nitrate of soda is usually 18.8 per cent ammonia; 376 pounds of plant food. That would seem to mean that in a ton of nitrate of soda, that it has 300-and-some-odd number of pounds of available plant food.

The entire bulk of that ton of nitrate of soda goes into the mixture of fertilizer, but there is only that percentage of its bulk which consists of plant food. The remainder is sodium oxide, called "carrier." It is not something which is added to the product by anybody; nature put it there. It is not something which is within the control of anybody. It can be extracted.

"Q. Would that simply result in a chemically pure nitrogen?

"A. You could not mix the pure product, you would still have nitrate of soda there combined with it."

[fol. 666] In actual practice there is no confusion about this subject in the trade itself. When persons buy, they buy on analysis. They know that in the given ton there is a certain percentage of each of those plant foods. The State of Alabama makes you print the number of pounds of plant food on the bag, in addition to the percentages. It is only in the non-technical circle that amusement seems to be furnished by any reference to the matter of "filler" at all. (Tes. 901-903.)

"By Mr. Roberts:

"Q. In your chart No. 2, mineral ammonia, you have nitrate of soda, sulphate of ammonia and cyanimid. In the chart No. 3, you show in this 10-3-3; 7.5 per cent. of ammonia, sulphate, and 2.5 per cent. of nitrate of soda in weight. Does that mean that 7.5 per cent. of sulphate of ammonia answers the purpose of 2.5 per cent. of nitrate of soda?

"A. That means that in a ton there are 150 pounds of sulphate of ammonia and 50 pounds of soda. It is per cent. of a ton."

Cyanimid could go, some call it organic, and some call it mineral. You can figure it either way you want to. Certain States have permitted you to figure it as an organic ammonia, but the quantity that you can use is so small per ton that we left it out of our typical formula. The quantity of cyanimid that you can use per ton is small because its action is heating; if you use nitrate of soda it will throw off the ammonia, or it would make your goods so hot at the time of mixture that they would cake in the vats. They would not sour; they would just get hard; set up. You would use considerably more sulphate of ammonia in making up a ton than you could of cyanimid. Well, there is about 550,000 tons of cyanimid made in this country, and I don't suppose there is over 30,000 being made at Niagara Falls today, and a good bit of that is going to some other use than the fertilizer industry.

"Q. You say there is 55,000 tons of cyanimid?

"A. Sulphate of ammonia, made in this country today."

[fol. 667] Cyanimid is imported, not in large quantities, however. I don't think, speaking for our mills, we have not bought a pound of cyanimid this year are not going to buy any; we have quit using it. We have not bought a pound of cyan-mid for these mixtures for this year. (Tes. 903-905.)

Cross-examination:

"By Mr. Gwathmey:

"Q. Doctor, does not the heavy movement of fertilizer take place from the port cities, such as Charleston, Savannah, Wilmington, Norfolk, etc.?

"A. I would think they are the largest centers, yes."

The materials at those port cities are brought in by water.

"Q. On your Exhibit No. 325, do these compilations purport to reflect the actual manner in which you do business, or are they simply selected for the purpose of drawing this illustration?

"A. In the case of our plants, these are as near as we can get at it the actual way these goods will be made this year."

Taking Norfolk, Virginia, the first point shown. That phosphate rock from Royster, Florida, and the sulphur from Gulf Hill, Texas, would move in by water. I do not know whether they are water rates or rail rates?

"Mr. Gwathmey: They are the water rates.

"Mr. Cotterill: I think they are.

"Mr. Dashiell: Sulphur from Gulf Hill, Texas, to Norfolk, Virginia, moves by rail from Gulf Hill to Galveston, and by steamer from Galveston to Norfolk.

"Mr. McGehee: What is the distance of the rail movement?

"Mr. Dashiell: I don't know exactly, something like 25 or 30 miles; I think it takes $2.15 to take it from the mines to put it in the steamer. The phosphate rock moving from Royster, Florida, would move by rail from Royster to

Tampa, or Port Tampa, the rail rate is $1.13, which includes placing the rock into the steamer, and then the steamer movement from Tampa or Port Tampa to Norfolk.

[fol. 668] "Mr. Gwathmey: Then, Mr. Dashiell, the rates shown on exhibit purporting to be the actual transportation, include the water rates and the rail rates?

"Mr. Dashiell: That is true, the actual charges that we paid, which is much lower than the all-rail rate, of course."

By Mr. Gwathmey:

"Q. Doctor, getting back a moment to your exhibit 325, I notice that taking Charlotte, for instance, supply of sulphuric acid obtained from Columbia, the rate shown is $2.14. When you get over to August-, just across the river from Columbia, and from which, naturally, the rate on sulphuric acid would be considerably less than the rate to Charlotte, you show that you get your supply of sulphuric acid from Copper Hill, and pay a rate of $3.50.

"A. We would love to get it on the lower rate."

We get our acid for use at August- from Copper Hill instead of Columbia as there is none there to get. We get our acid at Columbia for use at Charlotte, because Royster makes it there; it is Royster's acid.

As to why we don't supply our Augusta plant from our Columbia stock, just as we apparently supply our Charlotte plant from Columbia stock: they don't make it, they don't have enough.

It is a different company. As I say, we would love to buy it from them at that price. They are different companies.

"Q. Now, with reference to your production at Charlotte, this exhibit shows that out of the total transportation cost, inbound and outbound, of $5.96—what is that average inbound cost per ton in cents—here is a figure indicating a total freight charge for material, $396.04, and of that $396.04, $215.71 is made up by your charge on phosphate rock and sulphuric acid, is it not?

"A. Made up of the phosphate rock and sulphuric acid that went into the making of 1,250 pounds of acid phosphate, that went into the ton of 10-3-3." (Tes. 905-909.)

Indirectly, that figure of $215.71 represents transportation costs on phosphate rock and sulphuric acid. I do not [fol. 669] know if the rates on either one of those commodities are involved here in any way.

On my exhibit, page 3, illustrating Augusta, Georgia, the source of the filler is given as Hephzibah; that is a little place just outside of Augusta.

By Mr. Mohr:

"Q. On the first page of Exhibit 325, Doctor, you show there fish scraps from Norfolk, two and a half tons, 40 cents; that extension should be $1.00 instead of $10.00, should it not?

"The Witness: If it is an error, they will correct it."

I show there 100 pounds of ingredients, the calculation should not be based on 90 tons; we have to pay freight on filler. Our filler is obtained locally in some instances, but not right at the place; we have to pay freight on it.

"Q. Where the filler is obtained locally, that is indicated in the exhibit, is it?

"A. No, the freight is shown on it here, filler from Gilbert is $1.26.

"Q. Now, taking the item of tankage on that page, Montgomery—would you say that the tankage in the mixture of fertilizer for Montgomery all came from Carrollville, Wisconsin, or from points that Carrollville, Wisconsin, would be representative of?

"A. It is largely a deliberate cost of your unit of ammonia."

I can answer your question this way. The State of Alabama has passed a rule that if you use filler in your goods you must so print it on the bags. That forces the manufacturer to go out and buy a lower grade product, so that he can say that he has not used any filler. In this particular instance I imagine they have gone to Carrollville to get 7 per cent tankage instead of 10. Now, that is what they call "constructive" legislation. I think that this is a fair showing of the average freight charge on the 5½ net ton of tankage; it is true in the plants manufacturing fertilizer in the States of Alabama and Tennessee. In this particular case,

I believe that the Montgomery plant was compelled to go [fol. 670] to Wisconsin to get the kind of tankage in all cases that they needed. This would be representative of 1925, I take it. We are transporting lower grade materials than that, I will answer your question still farther, and paying more freight on it. The origin points on the tankage used in this exhibit, I would say were Chicago, Carrollville, and Norfolk, Virginia. Cincinnati, and Southern Ports, for foreign nitrogenous tankage, like Charleston and Jacksonville. Now, I don't think we have in this exhibit considered that we get any tankage from Louisville, because the quantity is small. You will have to go to the centers where the tankage is produced in quantities, if you are going to have an exhibit that will be of some value. You cannot pick out the lowest point. I might have a factory in Montgomery, and have a little soap works alongside of me, a mile away, and I could not use that freight rate.

"Q. I think you have taken the most remote point, Carrollville, Wisconsin.

"A. Well, where is there much tankage produced in the South?

"Q. You just mentioned quite a number of points nearer than Carrollville, Wisconsin, and lower freight rates.

"A. Yes, but we have got a particular object in going to that place, forced to go to that place."

In order to get a lower grade material. We don't get it all from that point. I would say in this particular case it probably represents all of the tankage Royster gets going for use in this Montgomery factory.

"Q. Are you in position to say that all that Royster uses, that approximately all that Royster will use at Montgomery, will come from Carrollville?

"A. The only reason they got it is because we could not get there first and get it.

"Q. Now, there is another mathematical calculation that strikes me, that seems inaccurate, on this page 2. You say, or show nitrate of soda, Spartanburg from Savannah $7.50 a net ton?

"A. No, that is tons.

"A. (Interrupting.) $3.83 is the freight rate.

[fol. 671] "Q. $3.83 is the freight rate, and the freight charges $9.58. That should be about $24.00, should it not?

"A. I should say it should, yes. Somebody slipped a cog." (Tes. 909-914.)

On the next page, Hartsville, South Carolina, sulphuric of ammonia, and another calculation from Steelton, Pennsylvania, 7½ net ton, freight rate $5.79, extension $58.63. That should be $43.00.

"Q. Now, is there any reason why, in the case of Montgomery, which point seemingly elects to get its acid phosphate, or make its acid phosphate out of rock and sulphuric acid that came from Royster, Florida, and Copper Hill, should be charged on the acid phosphate $3.91 per ton freight rate, when Mobile seemingly gets its phosphate rock from Mount Pleasant at $3.82 rate, whereas, if Montgomery would elect to obtain its material from the Mount Pleasant district, the freight charge would be less.

"A. I presume Royster has to get its rock where it has its own mines."

Some other fertilizer factory may be differently situated, and the result on the exhibit would have been different had I used different fertilizer factories. As to the difference of the cost of the rock entering into that I don't think there is very much difference in the market price between the 75 Tennessee rock from Mount Pleasant delivered to Montgomery and 75 from Florida, basing it on the basing mine prices, F. O. B. mines, at either point. That is delivered at Montgomery.

"Com. Eastman: Mr. Cotterill, are the freight rates on the inbound materials at issue in this case to any extent?

"Mr. Cotterill: Oh, yes; includes all inbound material other than rock and acid."

By Mr. McGehee:

"Q. Dr. Bates, you recall that Dr. Davis gave the number of fertilizer plants located in the State of Georgia. I don't know whether you heard him or not.

"A. I do not remember what that number was. I remember his saying 800-and-something in the country."

the manufacturing plants like those of Royster and our company. From these mixing plants located throughout the State of Georgia and the State of Alabama, for example, I would not say that is entirely true that practically their entire product of completed fertilizer moves out by wagon, and not by railroad. I would say that probably as much as 50 per cent. was wagon deliveries. We have a number of those dry mixing plants. That is true of those. I think that mostly Florida goes through warehousing, they are still maintaining warehouses down there. We have got a plant at Jacksonville, Florida. It is not on there for Jacksonville is a dry mixing plant.

I have made no study of those cars that moved out to country stations or what moves back in them when they are made empty. My replies in that connection to our counsel were made without any particular study of the situation.

Referring to your Exhibit 324, chart 3. On the 10-3-3 formula, you could use cottonseed meal for part of the ammonia content in substitution for one of the other articles shown here. No reason why it could not be used.

If we were using cottonseed meal, I don't think there would be any more than 50 pounds to the ton. It would be 2½ per cent per ton by weight.

"Q. And what per cent of ammonia would that be?

"A. Well, the 50 pounds of cottonseed meal at 7 per cent., would supply 3½ pounds, it would give you about 15 points out of your three.

"Q. I wanted to see the corresponding figures, what you show there, 10 per cent, available from tankage, what would be the figure there with reference to cottonseed meal, of 50 pounds?

"A. You mean, where we show 10 per cent. ammonia? Well, it would be 7 per cent. ammonia." (Tes. 914-918.)

That data, as I understand it, was prepared by the various traffic departments of the various companies interested, simply using their conditions to fit the formula shown on bottom of chart 3. In one of these cases headed Swift & [fol. 673] Company, illustrating Atlanta, that indicates that there are various companies represented at these several points. (Tes. 919.)

C. A. Burr was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

(Statement:) My name is C. A. Butt; Residence, Atlanta, Georgia; chief chemist, International Agricultural Corporation.

My principal duties are the analysis of fertilizer materials and mixtures, chemical analysis and control in some departments of the process involved. I am pretty generally familiar with the chemical composition and properties of the various kinds of materials which are used in the making of fertilizer.

"Q. At the former hearing of this case it was intimated as a possible contention of the carriers, that in some way, or in some measure, the transportation of acid phosphate in box cars tended to rapid deterioration of the equipment. For the purpose of dealing with that question, have you prepared yourself to testify specifically concerning the variety of conditions, and chemical reactions, if any, to which the freight car equipment of the carriers would be subjected by the transportation of acid phosphate?

"A. Yes, sir."

In its normal condition acid phosphate is a fairly dry substance, carrying from 8 to 10 per cent moisture. That is percentage of moisture by weight.

That degree of moisture would be susceptible to the sense of touch if you compared it relatively drier substances that you had to compare with it. If it be assumed that a carload of normally dry acid phosphate be transported, the lading then discharged and some of the product remains in the crevices in the corners of the car, there is no noticeable [fol. 674] chemical effect upon the decay of the car. The wood might absorb, under certain conditions, a portion of the soluble phosphate. When I say under certain conditions, I am not assuming a normally dry mixture. What I have reference to is a higher degree of moisture than would be normally.

If shipped from the plant, the percentage of moisture in acid phosphate would not be such as to cause any chemical

effect on the car. It would have to come in contact with moisture in the course of transit. Assuming, then, that for some unfortuitous reason, whether due to negligence or otherwise, the contents of that car had become subjected to an extraordinary degree of contact with moisture, there might be some chemical effect upon the woodwork of the interior of the car; it would be a small absorption of the soluble phosphate by the wood. That absorption by itself, even with the extraordinary conditions I have described, would not be sufficient to be noticeable upon the examination of the car.

I took borings from one car which had previously been loaded with bulk acid phosphate. I did not accumulate and save those borings. I analyzed the boring and found .08 per cent of $P_2O_5$ in the wood. Even under those extraordinary conditions that trace of phosphoric acid, absorbed by the woodwork of the car, would not disappear as a consequence of drying; it would remain for a considerable length of time. In that form it would not deteriorate the car itself; it would not cause any noticeable pulverizing of the woodwork. The damage to the car as such, if any, under those extraordinary conditions is not perceptible. (Tes. 920-924.)

It is simply that there is a trace of phosphoric acid in the outer surface of the wood. It would not materially tend to lessen the life or usability of the car.

It will not contaminate other articles thereafter placed in the car, unless the car gets wet afterwards from some outside cause.

There is no other material that I recall having sufficient moisture to coat the surface of the woodwork with the material. Let me make one exception. Acid fish scrap carries 30 to 40 per cent moisture, and that will coat the [fol. 675] surface of the wood with a soluble portion of the material. In the unloading of nitrate of soda, there would not be left in the car any such substance in amount as could come in contact with other freight. All other materials that I know of would be taken completely from the car. With the possible exception of the conditions affecting an unusual saturation of acid phosphate, there could be no direct contact with later freight, which could damage it.

Taking the finished fertilizer—in ordinary run of mixtures, the opportunity of direct contact would not be there; that is always shipped in bags, and it has no chance to be left in the car.

That stuff comes through the bags a little, not perceptibly, as the bag is filled, it usually drops off. There might be some noticeable dust that would fly from a bag when it is filled, but in trucking around, putting it into the car, there is not apt to be any very considerable amount of fertilizer dusting out of the bags; if there were, we would have trouble with short weight. In the manufacture of fertilizer, one of the initial processes is what is known as acidulation. That consists of fuming, or mixture of the sulphuric acid and the ground phosphate rock. In the initial stages of that mixing, there is generated a rather pungent fume. One present in the vicinity of a fertilizer plant at that time could detect it, in and around the plant. Likewise, in the burning of sulphur for the purpose of making acid, in and around the plant there is usually a leakage that is noticeable. There are also one or two fertilizer materials used in relatively small volume, which possess a degree of odor which is very noticeable and characteristic.

Wet fish is really the worse material that we handle.

Peruvian guano has a noticeable odor.

The use of both that fish, and that guano, is almost very small, compared with other uses. I am not prepared to give the relative amount of the different materials that I use. I know that it is used in small quantities. Other than that fish and the guano to which I referred, I know of no other material possessed of such a strong and pungent and permeating odor as would endure in the car for any appreciable length of time after it is unloaded. Other than the one or two articles which I have named, and which are not fre-
[fol. 676] quently used, it is my testimony that the resultant odors left in the car fast disappear after unloading, and could not contaminate other freight, provided the freight is not loaded immediately after the fertilizer is unloaded. They have disappeared in a short time.

An exception should be made in the case of virtually all I have said as to sugar, and I will say sugar is under the peculiar disadvantage that it has a tendency to absorb even faint odors. There are other materials that would

give odor sufficient to injure sugar. Take paint and tar, and creosote. (Tes. 924-928.)

In the case of sugar it has a tendency to the absorption of odors of any rather pungent character that are left in the car. That is to be regarded as a disadvantage of sugar, not to the particular incident surrounding the shipment of fertilizer. I made a particular test for the purpose of determining if there was some conflict between the movement of watermelons and acid phosphate. I secured acid phosphate from the pile in the factory, just as it is made, and after it is cured and piled out on the floor in the laboratory at East Point, purchased a watermelon and put it in the acid phosphate and on top of it. That was the 15th of August, and after two weeks it was removed and no noticeable injury; no injury was apparent. I preserved the melon and have it with *you*.

In the commencement of my studies on this question, the carriers were invited, all parties, to make these studies, and to cooperate in the making of them. I understand they declined the invitation.

(The witness thereupon produced a watermelon, to which his testimony referred.)

"Q. Now, I did not quite complete one line of thought. I was speaking of the odors in and around the fertilizer plant during the processes or some of the processes in the making of fertilizer. It is your understanding that it is due to the fact that many people come within the vicinity of fertilizer plants and get the impression that fertilizer itself is rather strong in its odors simply by reason of their coming in contact with the plants at the time when certain processes are being carried out?

"A. Many get that idea."

[fol. 677] As a matter of fact, with the single exception of such mixtures as do contain this fish scrap, fertilizer is, as prescribed in commerce, practically an odorless commodity. I have brought samples here for the purpose of enabling any person to test the accuracy of that conclusion. I have here samples of fertilizer of various kinds that are right in the room, even here being described.

If anybody is inclined to dispute the conclusion that it is practically odorless commodity in all instances except

where a small percentage of fish scrap is used, the samples are here available, of the test and conclusion.

(The witness thereupon produced various bottles containing samples of fertilizer.)

I have made inquiry to some extent in the other industries, some other industry, for the purpose of determining what experiences, if any, they have had in the way of damage to their goods resulting from the prior shipment of fertilizer or its materials. In attempting an investigation, I first visited a few cotton goods manufacturers, wholesale grocers, produce merchants, in search of some instance of injury, and failed to find any. That is as far as I carried that investigation. I have been with the International in this capacity 14 years. I don't recall that during or immediately after the Railroad Administration period various plaints were presented to the carriers on account of the alleged damage to freight growing out of the prior shipment of fertilizer in the equipment. I don't remember being asked by the railroads to assist them in refuting that claim, and the making of the tests, for the purpose of establishing that no such damage could occur. (Tes. 928-932.)

Cross-examination.

"By Mr. McGehee:

"Q. Doctor, do you think a man could go out and take any of the 10-2-2, or 10-3-3, if he were to go out in the field today, and spend a day distributing guano, or fertilizer, and you were to meet him on the street, do you think you would have any difficulty in determining what he had been doing all day?

[fol. 678] "A. I believe you would get an odor from the dust that would be in his clothes."

That vial you hand me is a brand called 9-2-3. That has very little odor.

There are manufacturers who tell citizens in order to sell them fertilizer, it was better because of the very pungent odor it has got; there are fewer now than there were.

"By Mr. Gwathmey:

"Q. Doctor, with reference to the acid phosphate in the car injuring the freight that may be shipped thereafter, if some of the acid phosphate gets into the crevices of the car, and is not cleared out, and subsequently moisture should get in there, it will become damp or wet. Would not that release the character of the spirits in the acid phosphate, and if it should come in contact with a sack containing flour or meal or anything of that sort, damage it?

"A. The acid phosphate in fact is very mild. It might be termed corrosive, but that property is very mild, as demonstrated by the watermelon test."

I would say that if the bag of flour got wet with the acid phosphate, it would take up the soluble phosphate, but I don't believe it would damage to any extent the flour or the bags.

I don't know that carriers clean the cars after shipping fertilizer before it is taken out of the fertilizer movement. I do not know whether they do or not.

"By Mr. Menzies:

"Q. Doctor, would you have been willing to prove to the satisfaction of our watermelon growers, that watermelons shipped from the fields in cars, in cars used for fertilizer, could do not harm. We get hundreds of thousands of claims for alleged damage, and if you can prove that no damage is done, we will be willing to give you a pass to go over our lines, the I. C. C. permitting, to look into the matter and prove that fact to the melon growers; would you do that?

[fol. 679] "A. I could not attempt to prove that there is no damage. That damage might occur from other things besides fertilizer. We do not know whether it was fertilizer or not, do we?"

That is the claim on the part of the melon shippers.

So far as concerns damage to the melon, if any, as a result of its shipment in a car which has previously contained fertilizer, I feel positive that no possible damage to the melon occurs by reason of that fact. I would like

to exhibit this watermelon. Now, this side of the watermelon was turned down, and rested on the acid phosphate (indicating). That melon was never shipped. That melon was grown near Hapeville, Georgia; I put that arrow on there (pointing to the place). There is no effect whatever. The friction in a car will rot away melon, but I can see no possibility of fertilizer coming into a watermelon enough to damage it.

I have no record as to how many times the particular car which I examined and made borings of was loaded with fertilizer. I know that it was just emptied of bulk acid phosphate.

I made the borings in the floor in each end. I took four borings; two at each end. Near the center at the ends.

"Q. You do not know what length of time it had been since the car was loaded with fertilizer, if it was ever loaded with fertilizer?

"A. I know it had been loaded with bulk acid phosphate, but not mixed fertilizer; I don't know about that." (Tes. 932-6.)

If the car had been loaded with fertilizer, or if the car had been loaded with fertilizer a number of times just prior to my examination, it is possible that a quite different result would have been obtained.

"Q. Now, you stated in answer to counsel's question, that the odors in a car disappeared after a short time, but you did not state that they disappeared within the normal time within which a car ordinarily is reloaded with freight. I wish you would be more specific in your answer and state just when the odors do cease, in your opinion.

[fol. 680] "A. We have no way to tell how long the odor would persist."

If the car had been loaded several consecutive times with fertilizer, that odor might be there four or five days, but we could not think it would be perceptible after 24 hours. That is an opinion from an investigation that I have made on wet fish scrap. A car was received and unloaded and washed out, and you could still smell fish odor. In this instance the car had been washed out, and the fish odor persisted for a full 24 hours.

In an instance where a car is loaded with fertilizer, manufactured fertilizer, on several occasions, and been kept in the fertilizer service, shuttling back and forth, and is not cleaned, the length of time the odor would persist in the car depends on the kind of fertilizer. There are some brands of fertilizer that the odor would not persist 24 hours. Leaving out fish scrap, and confining my statement and remarks to fertilizer, completed fertilizer, the odor would persist at least 24 hours, or maybe 48.

I do not know whether flour in sacks would absorb the odor from the fertilizer in cases where a car had been used twice, say in succession, for commercial fertilizer of the ordinary kind.

I would say that paint inside of sealed tin cans, would not give off an odor. Paint in barrels would have some odor. It will be just as penetrating as fertilizer in the case of sugar, in my judgment. I have made no tests on that. I was informed by a former wholesale grocer. I have no samples here of odorless completed fertilizer. No mixture; we have the materials. I would consider acid phosphate, ammonium sulphate, and nitrate of soda, and muriate of potash, practically odorless. All the other samples which you have here have odors in varying degrees.

I have here eleven samples.

"Q. Four of which are odorless.

"A. Eleven." (Tes. 936-940.)

Cyanimid has an odor; a little odor. Sulphate of ammonia has a little odor.

[fol. 681] "Q. Nitrate of soda?

"A. All materials have an odor—but in some of them the odor is very little."

I have a sample of cyanimid there. It came to the factory at East Point from Niagara Falls, and it is taken from stock in the factory.

It is not a part of my duties, as a chemist for the International Agricultural Corporation, especially to go around and inspect cars loaded with fertilizer, or cars that have been loaded with fertilizer and ascertain the condition of those cars. My work is in the laboratory and in the plant at certain times. I have seen cars loaded with fertilizer.

My duties have been such as that I had had occasion to go out and examine cars.

"Q. After they have been used for fertilizer or fertilizer materials, to see what the condition of the car is, how much of the fertilizer may have been left in the car, how much may have gotten in cracks and crevices, and how much odor there may have been left around there?

"A. I have examined those things after the investigation began on this case."

For the purpose of this case. We examined six or eight cars at the East Point factory. Outside of this examination of six or eight cars, I get my testimony as based upon my expert general knowledge as a chemist.

There would be a small difference in the condition of a car that moved during the wet season and during the dry season; greater saturation.

Animal tankage is rather high in pungency of odor. So is the fish.

Other than those, it is my testimony that while there is a perceptible odor to be derived from opening a closed car of these other materials, that such odor as there is speedily disappears when the product has been unloaded from a car, unless it be some such product as contains within it the fish scrap or animal tankage. In the case of a product in which those two materials are used, the pungency of odor will be more noticeable, and will remain longer. As to certain kinds of food, such as sugar, and [fol. 682] conceivably flour, those kinds of foodstuff have the property of absorbing odors of any pronounced kind, and not alone of fertilizers.

Reference was made to eleven samples, and of the eleven samples, two of them consist of fish scrap; one of animal tankage; one consists of cyanimid; and one consists of a complete mixture of 9-2-3.

This 9-2-3 was made in our own factory in Americus, and they have used 25 pounds of fish scrap in this particular sample. In other words, in the case of that particular sample mixture of 9-2-3, that is a specimen of a mixture in which fish scrap has been used. It is that which gives it the more than ordinary pungency of odor.

I have no knowledge as to any instance in which the railroads have solicited from the fertilizer factories helpful suggestions and information which would tend to refute unwarranted claims based upon an assumption of damage to other freight by fertilizer, which in my judgment and experience could not have occurred.

If the railroads wish to do so, the facilities that my company has, and the Association, are available to them for that purpose.

"By Mr. Mohr:

"Q. Is it not a fact that the preponderance of fertilizer contains fish scrap?

"A. I could not hardly testify on that." (Tes. 940-45.)

Fish scrap has been used in some of the fertilizer for years.

From my knowledge, I would say that a small percentage of the tonnage of commercial fertilizer used in the United States contains fish scraps. Confining it to the South, I have no comparative data on the amount of fish scrap used.

I could give you my opinion, and my information is that animal tankage is a small percentage of the total tonnage.

"By Mr. Mohr:

"Q. That is a very small proportion of the tonnage of fertilizer manufactured in the South contains fish scrap or animal tankage; that is your judgment?

[fol. 683] "A. Not a very small; I would say a small percentage would.

"Q. About 20 per cent, in your judgment?

"A. No, I would not confine myself to percentages; I would be afraid to say. I have just opinions on the subject." (Tes. 945-6.)

(Witness excused.)

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H. R. Bates was thereupon recalled and, having been previously duly sworn, testified further as follows:

From my observation as to the use of sulphate of ammonia, it is being applied broadcast. It is being used as a direct fertilizer; a top dressing, as well as a mixture.

Cyanimid cannot be used as a direct fertilizer, because it is too costly; got about 44 per cent of lime in it.

I think as a general thing, practically all of the manufacturers are putting as much—they are spreading the country's production of fish scrap through practically the entire production of mixed fertilizers; it is about one per cent of the total production of mixed goods. The percentage of fish scrap in a particular fertilizer, finished product, by that indicated in this Exhibit is that or less, and no more. That is also true of animal tankage. That is, where the goods are manufactured. Let me qualify that if you will. Where the goods are manufactured, the formula usually indicates a specific ratio of animal ammonia, and organic ammonia, and the quantities of tankage that are used, are governed by that ratio. That ratio there happens to be on 20-20. I would say that probably 70 per cent of all the fertilizer sold in the South was mixed ammoniate goods carrying a substantial quantity of tankage either in the form of packing house tankage of nitrogenous manure, and a small quantity of fish, and having a distinctive fertilizer odor. (Tes. 946-8.)

(Witness excused.)

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[fol. 684] T. A. Bosley was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

My name is T. A. Bosley, traffic manager, Virginia-Carolina Chemical Company, Richmond, Virginia. I am a member of the traffic committee of the National Fertilizer Association. I have been engaged in traffic work, connected with fertilizer, for 25 years. For convenience, I have condensed my remarks concerning certain series of exhibits which I intend to introduce. There are 89 of those exhibits in number.

(The statements were thereupon received in evidence, and marked "Protestants' Exhibits Nos. 326 to 414, inclusive, Witness Bosley.")

326 to 391 is the first set, and 392 to 414 is the second set.

By reason of the fact that the traffic test covering fertilizer has been made, not so much importance is to be attached to the comparison between various existing and proposed fertilizer rates. However, in the proceedings, the carriers presented numerous exhibits in which such comparisons were made. It seems at least justifiable to present in this record other comparisons, if for no other reason, that the two sets of exhibits will enable the Commission, if it so desire, to locate the higher and lower rate areas. In a series of exhibits about to be referred to in more detail, such study has been made, including corrections of some of the carriers' exhibits, where such corrections have been most obviously needed.

As a consequence of the studies which have been devoted to this case, we and my associates have prepared a single, and another scale, to be known as joint line scale, which is laid before the Commission and the other parties as representing the rate levels which are sought to be approved. That is my Exhibit No. 326. (Tes. 949-50.)

This Exhibit 326 shows a comparison of the mileage scale proposed by the Traffic Committee of the National Fertilizer Association with that proposed by the carriers and those prescribed by the Interstate Commerce Commission in the cases cited.

[fol. 685] First is shown the proposed scale of the National Fertilizer Association Traffic Committee for uniform application between Southern points, both on interstate and intrastate traffic, single and joint line; then the scales proposed by the carriers, together with per ton mile and per car mile revenue for both. The scale we present was adopted by the Committee after an exhaustive study of the prevailing scales in the South as being the most reasonable and consistently graded one for uniform application in the South under present conditions.

The single line (Trunk Line) scale starts with 80 cents for 5 miles and progresses 10 cents for each 5-mile block up to 25 miles; 5 cents for each 5-mile block up to 100 miles; 10 cents for each 10-mile block up to 260 miles; 10 cents for each 20-mile block up to 500 miles; 10 cents for each 25-mile block up to 800 miles, and 5 cents for each 25-mile block up to 1,000 miles.

The joint line (Trunk Lines) scale is made the following differentials over the single line scale: 30 cents 10 miles to 150 miles; 20 cents 160 miles to 340 miles; 10 cents 350 miles to 500 miles, and the same as the single line scale over 500 miles. These rates are per net ton.

This is based on the theory that the joint line differential should decrease with increased distance, which we believe is proper.

These scales for distance up to 500 miles are the same as those recently adopted by the Alabama Public Service Commission after exhaustive investigation and comprehensive report in their Docket 4136.

Next is shown the so-called Royster Scale, single and joint line. This scale was prescribed by the Interstate Commerce Commission in the F. S. Royster Guano Co. vs. A. C. L. Railroad et al., Docket 7573, 50 I. C. C. 34, for application from Norfolk to North Carolina points on the A. C. L., N. S., S. A. L. and Southern Railways; in the Freight Adjustment Steering Committee, of Charleston, S. C., vs. A. C. L. Railroad et al., Docket 8627, 53 I. C. C. 506, for application from Charleston, S. C., to North Carolina points on the A. C. L., N. S., S. A. L., and Southern Railways; also the Traffic Department of the Goldsboro (N. C.) Chamber of Commerce vs. A. C. L. Railroad et al., Docket 14810, 91 I. C. C. 315, for application from Wilmington, [fol. 686] N. C., to North Carolina points on the same lines on interstate traffic.

Scales in the first two cases have been advanced and reduced in accord with General Order 28, Ex Parte 74 and reduced rates of 1922.

This scale extended to 1,000 miles is being proposed by the carriers for uniform application in the South, both on intrastate and interstate traffic. It is true that this scale has been prescribed by the Commission in three proceedings, however, in the first two mentioned cases, the main issue involved was one of discrimination and undue prejudice against Norfolk and Charleston and in favor of North Carolina manufacturing points from which the scale prescribed by the North Carolina Corporation Commission applied. The scale prescribed by the Commission was the same as then applicable between North Carolina points on intrastate traffic and as prescribed by the North Carolina

Corporation Commission, this placing the rates from Norfolk and Charleston to North Carolina points on the same relative basis as rates between points in North Carolina, and removing the undue prejudice complained of. In the Goldsboro Case, as we understand it, the main issue involved was what constituted interstate or import traffic as distinguished from intrastate traffic from Wilmington to North Carolina points and whether or not the interstate or intrastate rates were applicable.

We desire to call attention to the fact that in the original scale prescribed by the Commission in the Royster and Charleston cases the joint haul rates were made a differential of 20 cents over the single line rates for all distances. The increases of 1918-1920 and reduction of 1922 results in the joint scale being thrown out of its proper relation to the single line scale. As instances the following mileage group rates illustrates this improper relation or gradation of the joint haul rates:

70 miles, single line $2.14; joint haul rate $2.37, a difference of 23 cents.

75 miles, single line $2.14; joint haul rate $2.48, a difference of 34 cents.

100 miles, single line $2.59; joint haul rate $2.82, a difference of 23 cents.

[fol. 687] 110 miles, single line $2.59; joint haul rate $2.93, a difference of 34 cents.

The joint haul differentials, it will be noted, range from 22 cents to 34 cents over the single line rates. We feel that this differential should be graded more uniformly and decreased with increased distances. Moreover, in our opinion, the single line scale is too high and improperly graded under the present conditions for general application throughout the Southeast.

In this connection we wish to direct attention to the language used by the Commission in the Blackshear Manufacturing Co. vs. A. C. L. Railroad, et al., Docket 9247, 87 I. C. C. 654, page 662, and again on page 663. With these statements of the Commission we are entirely in accord.

The Royster scale applies on complete fertilizer, and on other fertilizers, except certain materials on which the Commission makes a reduction of 10 per cent. It is also

applied to mixed goods, but not to fertilizer materials. It does not apply on acid phosphate in bulk, tankage, and I have not a list of the materials, but various materials 10 per cent less than the Royster scale, carload minimum 50,000 pounds. There are certain commodity rates in effect from Norfolk to certain points in North Carolina, but it only applies to points of manufacture, and not to all points in North Carolina. That is to say, there are certain fertilizer factory points in North Carolina to which the rates from Norfolk on materials are less than the Royster scale.

Next is shown the Memphis-Southwestern Scale prescribed by the Interstate Commerce Commission in the Memphis-Southwestern Investigation, Docket 9702, 77 I. C. C. 473, for application from Memphis, St. Louis, New Orleans, Shreveport, etc., to Arkansas, western Louisiana, and Southern Missouri points, and between points in this territory interstate and intrastate; in Arkansas Fertilizer Company vs. A. & S. Railway, et al., Docket 14,371, 92 I. C. C. 587, for application from Little Rock, Arkansas, to Oklahoma and Texas points. This scale has also been recently established voluntarily by the carriers from Shreveport to Texas points, and has been proposed for application from New Orleans, Memphis, etc., to Texas points.

[fol. 688] This scale was prescribed in the large territory mentioned by the Commission after an exhaustive investigation. It will be noted that this scale is for distances up to 180 miles lower than the Royster scale, and slightly higher for distances in excess of 180 miles.

The Commission have held in several cases that transportation conditions in the Southwest are less favorable than those prevailing in the Southeast, and as a result of this difference in transportation conditions the rates in the Southeast are generally on a lower level. (87 I. C. C. 654; 77 I. C. C. 502; 78 I. C. C. 151; 80 I. C. C. 157).

The joint haul differential is 20 cents for all distances over the single line scale.

Next is shown the single line and joint line scales prescribed by the Interstate Commerce Commission in Blackshear Manufacturing Co. vs. A. C. L. Railroad, et al., Docket 9247, 87 I. C. C. 654, involving rates from Blackshear, Georgia, to Florida points.

Scale No. 1 applies from Blackshear to northern and western Florida points, and Scale No. 2 to southern Florida points as defined on the exhibit. It will be noted that Scale No. 1 applicable to northern and western Florida is for distances up to 180 miles lower than the Royster scale, the same at 420 miles and lower thereafter; and slightly higher for distances 190 miles to 400 miles and was prescribed for application in a territory where transportation conditions are admittedly less favorable than in the Southeast generally. This scale is for distances up to 240 miles the same as the Memphis-Southwestern Scale; over 240 miles it is, in some cases, slightly higher and others slightly lower. The joint haul differential prescribed in this case, it will be noted, is also 20 cents, for all distances, over the single line scale.

Next is shown the single line scale prescribed by the Interstate Commerce Commission in the Virginia-Carolina Chemical Company cases, Docket Nos. 2317, 2151 and 2618, 18 I. C. C. 1, 3 and 5, for application from Memphis to points in Arkansas on the Iron Mountain, Rock Island, and Frisco, advanced in accord with General Order 28 and Ex Parte 74, and reduced in accord with the reduced rates of 1922, less 2 cents per 100 pounds Memphis bridge toll, which was the toll fixed by the Commission [fol. 689] in Docket 9702. This scale, it will be noted, is lower than the Royster scale for distances in excess of 55 miles, except at 80, 85, 90, 105 and 110 miles it is slightly higher. It is higher than the Memphis-Southwestern Scale up to 125 miles, the same at 130 and 135 miles, and lower thereafter. It is noted, however, that the graduation of this scale differs materially from the others, mileage blocks of 25 miles being used up to 100 miles and 50-mile blocks thereafter. That scale was superseded by the Memphis-Southwestern Scale.

Exhibit 327, this exhibit shows a comparison of the mileage scales proposed by the Traffic Committee of the National Fertilizer Association with those proposed by the carriers, and the present intrastate scales prescribed by the Southern States Commission.

First is shown the National Fertilizer Association Traffic Committee's proposed single line scale applicable over trunk and short lines and joint line applicable over trunk

line, short lines, and trunk and short lines, and the carriers' proposed scales, single and joint line, applicable over trunk line. When these statements were prepared we were not advised as to what scales would be suggested by the short lines, single or joint.

Our scale has been explained in connection with the preceding exhibit, with the exception of the short line scale. The single line short line scale is made 20 per cent. higher than the Trunk Line scale. The joint line short line scale is made the same differential over the single line scale as shown for the trunk lines except that the scale is only extended up to 300 miles.

The trunk and short lines joint line scale is made 10 per cent. higher than the joint scale of the trunk lines.

These scales are the same as those adopted by the Alabama Public Service Commission except the trunk and short lines joint scale for distances of 20 and 25 miles, where there is a difference of 10 cents. This change was made to correct an apparent error in the Alabama Public Service Commission's scale.

Next is shown the Virginia single line scale of the Southern Railway applicable between stations south of Richmond [fol. 690] and Lynchburg. This scale was selected because it covers a larger territory in what might be termed strictly Southern territory. The scales of the A. C. L. and S. A. L. Railways are higher but these lines operate comparatively little mileage in Virginia. Moreover, rates published from Richmond and Norfolk to A. C. L. and S. A. L. Railway stations in Virginia are on a lower basis than their mileage scales. The scales of the C. & O. and N. & W. Railways are higher than the ones shown, but these lines are located in Trunk Line Territory and their scales reflect the increase of 40 per cent. authorized in Ex Parte 74. (Tes. 950-960.)

There is no uniform scale prescribed by the Corporation Commission of Virginia, scales being prescribed for each line; nor is there a joint scale, joint rates being based on combination of locals. Through joint rates are published, however, that are generally lower than combination.

Next is shown the single and joint line scales prescribed by the North Carolina Corporation Commission for application via the Trunk Lines. These scales are those pre-

scribed by the North Carolina Corporation Commission effective October 13, 1914, with, of course, the increases of General Order 28 and Ex Parte 74, and the reduction of 1922, after an investigation by a special rate commission appointed by the Governor in compliance with an act of the Legislature of 1913.

Joint rates between the trunk lines and the short lines are made on basis of combination, the trunk line factors being subject to a deduction of 25 per cent., and the short line factors being subject to a deduction of 20 per cent. Prior to October 13, 1914, joint trunk line rates were made on basis of combination of the single-line mileage scales less 25 per cent.

Next is shown the present South Carolina single-line scale prescribed by the South Carolina Railroad Commission, their Orders Nos. 274 and 279, Circulars Nos. 275 and 277, effective March 15, 1924, applicable via trunk lines, and represented a horizontal reduction of 12 per cent. in the then existing rates.

There is no joint-line scale, joint rates being made by a combination of locals less a deduction of 20 per cent. from [fol. 691] each factor. Prior to March 15, 1924, the South Carolina scale was that prescribed by the South Carolina Railroad Commission, and with the exceptions of the increases and reductions of 1918, 1920, and 1922, has been effective since December 6, 1909 (Circular 135, November 1, 1909). The Railroad Commission of South Carolina on January 30, 1925, issued their Order No. 300 and Circular No. 289, providing for a further reduction in rates, effective March 8, 1925, but the carriers have secured an injunction against the order of the Commission and the reduced scale has not, therefore, been made effective.

Next is shown the Georgia single line scale as prescribed by the Georgia Public Service Commission. This scale is based on the Commission's standard Class M. scale less 10 per cent, and with the exception of the advances and reductions of 1918, 1920 and 1922, has been effective since January 1, 1897, their Circular No. 267.

Joint rates are based on combination of locals without deduction.

The Georgia Public Service Commission have recently prescribed single and joint line scales on classes and a number of commodities. A fertilizer scale was prescribed effective November 15, 1924, their Docket 15416. The short line carriers in Georgia were, however, successful in securing an injunction in the Federal Court against the order of the Georgia Public Service Commission. This scale, therefore, remained effective only from November 15th to November 26, 1924, 3:30 P. M. The scale prescribed represented substantial reductions in the present scale. A different South Carolina scale has been enjoined.

"Q. Well, is the one shown here the one your witnesses are complaining of?

"A. That is now in effect. No, the order that they prescribed and had enjoined here—well, I believe that the carriers also have Section 13-A proceedings against this scale as well."

"Mr. McGehee: The ones in effect. So far as the fertilizer interests and the railroads are concerned, I don't think there is any difference between us as to having a common level, State and interstate—is there, Mr. Bosley?

"The Witness: That is correct."

[fol. 692] Next is shown the Florida single line scale, Class M, prescribed by the Florida Railroad Commission for application via the A. C. L., F. E. C., L. & N. and S. A. L. Railways, and applies any quantity. This scale has been effective since July 1, 1903, via the A. C. L. and S. A. L.; November 1, 1910, via the F. E. C.; October 21, 1914, via the L. & N., with, of course the advances of 1918 and 1920 and reduction of 1922.

Joint rates are made on combination of locals less 10 per cent where two lines are involved, and less than 20 per cent where three or more lines are involved.

Next is shown the single and joint line scales prescribed by the Alabama Public Service Commission effective July 25, 1924, their Docket 4136, after an exhaustive investigation and comprehensive report.

Prior to the establishment of these scales the Alabama single line scale was the same as the present Georgia scale, joint rates being made on basis of combination of locals

without deduction. There were, however, in numerous cases published joint through rates lower than this basis.

This scale was established by the Alabama Legislature of 1907, and was known as the Statutory Scale, the Georgia Scale being adopted on some 110 commodities. This scale was made effective promptly by the A. C. L., A. G. S., M. & O., N. A., and Southern Railways after negotiations with the Governor and the Railroad Commission. The C. of Ga., L. & N., and Western Railways, however, contested same in the Federal Court and secured an injunction against its operation. On appeal the rates were ordered effective for a trial period and the scale finally became effective via the C. of Ga., July 27, 1914; L. & N., August 13, 1914, and W. of Ala., July 27, 1914.

Next is shown the Mississippi single line scales of the I. C., M. & O., and Y. & M. V. Railroads as representative. There is no uniform scale prescribed by the Mississippi Railroad Commission, each line publishing individual scales subject to the approval of the Commission. Joint rates are made on combination of joint mileage factors which are, approximately: 50 miles and under, 10 per cent; over 50 and under 150 miles, 15 per cent; 150 miles and over 20 per cent less than the local scales except between stations on affiliated lines where joint mileage rates are in [fol. 693] effect. These scales have been effective for the past several years with, of course, the advances and reductions of 1918, 1920 and 1922.

My next exhibit, 328, is a chart which graphically pictures the four mileage scales indicated, and speaks for itself.

My next exhibit, No. 329, shows an analysis of the carriers' proposed scales compared with a similar analysis of the scale being proposed by the National Fertilizer Association.

The carriers' proposed trunk line scale, single and joint line, for distances 35 to 500 miles is that prescribed by the Commission in the Royster Case, Docket 7573, 50 I. C. C. 34, advanced in accord with General Order 28 and Ex Parte 74, and reduced by 10 per cent in accord with the reduced rates of 1922. For distances less than 35 miles the single line scale is the same as the present North Carolina Scale; the joint line scale being made a differential of 34 cents higher

than the single line scale and is higher than the North Carolina joint scale. For distances 600 to 1,000 miles, the carriers' single line scale is made by using the original scale prescribed by the Commission in the Royster Case, extended by the use of the same progression observed by the Commission for distances between 500 and 600 miles; i. e., 10 cents for each 25-mile block. This extended scale was then advanced and reduced in accord with the horizontal increases and reductions above referred to.

The joint line scale is evidently made by observing the differential prescribed by the Commission; namely, 20 cents over the extended scale (single line), advanced and reduced in accord with General Order 28, Ex Parte 74 and Reduced Rates of 1922. This formula, however, does not result in the same figures proposed by the carriers for distances 850 to 975 miles, there being slight differences in their figures compared with those based on the formula described. It looks very much like there has been an error in calculation made in their figures arriving at their joint line scale for these distances.

The analysis made on the attached statement shows very clearly the inconsistency with which the carriers' single line scale is graded and the differentials in their joint line scale over the single line scale. These inconsistencies are, of [fol. 694] course, largely caused by the use of the scale prior to the general advances and reductions, and particularly the advances of General Order 28, which carried with it a disposition of odd figures in per ton rates.

I desire to call the Commission's attention particularly to the gradation of the carriers' proposed single line scale as shown in this exhibit. You will note that after passing 25 miles the progression is 11 cents for 10-mile blocks, and then drops back to 5-mile blocks; 11 cents increase again for 10-mile blocks, and drops back to 5-mile blocks, and so on up to 100 miles, where the rate for 110 miles is the same as for 96 miles; then advances to 20-mile blocks, 11 cents increase in rate, and drops back again to 10-mile blocks with 12 cents increase. This continues up to 300 miles. At 320 miles the rate increased 23 cents for 20-mile blocks, and for 340 miles and over 320, the rate increase is 11 cents. There is no uniformity of increase in the various blocks in the scale from start to finish.

The joint line differentials of the carriers' scale, you will note, ranges from 13 cents to 38 cents, the maximum differential 38 cents being shown at 950 miles, or very close to the maximum distance to which the scale is carried. This, of course, is contrary to all rate-making principles previously adhered to by carriers, as well as by the Commission, in constructing joint line mileage scales.

My next exhibit, No. 330, is a comparison of intrastate rates applicable between points in Southern States and an average of such rates, with the scale proposed by the carriers. It will be noted that this average is lower with one exception than the scale proposed by the carriers.

My next exhibit, No. 331, shows a comparison of the present rates based on the Commission's decision in I. & S. 1303, 64 I. C. C. 306, with the National Fertilizer Association's Traffic Committee's proposed scale and the carriers' proposed scale on fertilizer from St. Louis, Memphis, and Nashville to Mississippi Valley common points. You will note that except for short distances the National Fertilizer Association scale is higher than the rates established in compliance with the Commission's decision in I. & S. Docket 1303.

The next is a series which I have offered in one lot, 332-359, inclusive. This series of 28 exhibits shows a comparison of the present rates on fertilizers from Charleston, [fol. 695] South Carolina, Atlanta, Georgia, Birmingham, Alabama, Chattanooga, Tennessee, Cordele, Georgia, Knoxville, Tennessee, McCarty, Tennessee, Montgomery, Alabama, Nashville, Tennessee, New Orleans, Louisiana, Pensacola, Florida, Tupelo, Mississippi, and Savannah, Georgia, to interstate points, and from Chattanooga, Knoxville and Nashville, Tennessee, to Tennessee points, with those based on the scale proposed by the National Fertilizer Association's Traffic Committee and the carriers' proposed scale. This exhibit has 28 pages, goes to 359. Each one a separate exhibit, 332 to 359. The last exhibit is from Charleston, South Carolina, to Southern Railway stations.

It is realized that the traffic test does or should dispense very largely with the necessity of considering details of rate changes which would result by the substitution of different rates than those which now exist. But on the other hand the 28 exhibits which are just introduced and 25

others which follow at least serve to enable a proper impression to be derived concerning the areas which would be affected by one or the other of the different rate levels advocated by the parties to this proceeding.

The next series of exhibits, 360-384, inclusive, runs from Mobile, Alabama, to Gulf, Mobile & Northern Railroad stations. This series of 25 exhibits shows a comparison of the present interstate rates from Atlanta, Georgia, Augusta, Georgia, Blacksburg, South Carolina, Charleston, South Carolina, Charlotte, North Carolina, Jacksonville Florida, Memphis, Tennessee, Meridian, Mississippi, Mobile, Alabama, Montgomery, Alabama, Opelika, Alabama, Rome, Georgia, Savannah, Georgia, Wadesboro, North Carolina, and Wilmington, North Carolina, to interstate destinations with the intrastate scale prescribed by the State Commissions in adjacent States.

Those exhibits show that the prevailing level of interstate rates is materially higher than the intrastate scales.

This data is submitted in compliance with Subject No. 6 shown in the notice of the Interstate Commerce Commission, dated March 9th, regarding this investigation in which they outline thirteen phases of the case on which they desired data. I was just talking about 360 to 384.

Exhibit 385 is filed to correcly show rate information incorrectly shown on the carriers' Exhibit No. 32, witness [fol. 696] Manzies, between points in Arkansas, and between points in South Carolina for distance of 125 miles. The scale shown by the carriers in their Exhibit No. 32 as applying between points in Arkansas is the Class E rates published in Agent F. A. Leland's Tariff No. 5-D, and is not applicable to fertilizers. Commodity rates have been effective between points in Arkansas for the past several years, the present rates being those prescribed by the Interstate Commerce Commission, Memphis-Southwestern Investigation, Docket No. 9702, 77 I. C. C. 473, and as published in Agent Leland's Tariff 114-A, I. C. C. 1645, and are shown on this exhibit. (Tes. 960-970.)

The carriers' Exhibit No. 32 shows a rate of $3.04 per net ton between points in South Carolina for distances of 125 miles, which is incorrect, the proper rate being $2.93.

This exhibit also shows other changes in the carriers' Exhibit No. 32, which we deem necessary to properly reflect the correct average of the scales shown. As instance, the

carriers show on their Exhibit No. 32 under the Virginia scale, the rates of the A. C. L. Railroad, which we do not think are representative of the Virginia rates. The Coast Line operate comparatively little mileage in Virginia, and very little traffic is handled on their rates. Moreover, the published rates from Richmond and Norfolk to points on their line in Virginia are in most cases materially lower than their mileage scale, as shown by my Exhibits Nos. 387 and 388. We have, therefore, substituted on our exhibit the rates of the Southern Railway in Virginia applying between stations on that line south of Richmond and Lynchburg, which we think is more representative of the Virginia situation.

On the carriers' Exhibit No. 32 rates are shown between points in South Carolina up to 250 miles only, and in Alabama only to 150 miles, which is the maximum distance operated by the Coast Line in those States. We have, therefore, extended these scales to 300 miles, observing the scale of the Southern Railway for distances in excess of 250 miles in South Carolina and 150 miles in Alabama.

Between points in Tennessee the carriers have shown the Class K scale of the Southern Railway on which, so far as we have been able to determine, no fertilizer traffic moves.

[fol. 697] The rates published by the Southern Railway from Knoxville and Chattanooga to stations on their line between Chattanooga and Bristol are on a considerably lower level than the Class K scale shown by the carriers, and we have, therefore, substituted on this exhibit the scale used by the Southern Railway in publishing rates from Chattanooga to stations on their line.

Between points in West Virginia the carriers' Exhibit No. 32 shows rates published in Agent Jones' Tariff I. C. C. No. 941, which is the sixth class, so-called Disque scale, applicable between points in C. F. A. Territory. We have substituted on this exhibit the rates applicable between points on the C. & O. Railway in West Virginia, which we think is more representative of the West Virginia situation than the scale shown by the carriers.

The carriers have also shown the rates between points in South Carolina and Alabama effective prior to the recent reductions ordered by the State Commission of those States,

and we have also shown such rates on this exhibit. If, however, the present rates applicable between points in those States were shown, it would further materially reduce the average.

This exhibit is, therefore, introduced to correct the errors in the carriers' exhibit, and to make the other changes noted, which we think presents a more accurate portrayal of the average of all of the scales shown.

Exhibit No. 386 is filed to show correct information as to the prevailing rates in Arkansas and Louisiana (West of the Mississippi River) incorrectly shown on carriers' Exhibit No. 32, Witness Manzies).

The scale shown on carriers' Exhibit No. 31 as being applicable between points in Arkansas in the Class E rate published in Agent F. A. Leland's Tariff 5-D, which does not apply on fertilizers, the commodity scale prescribed by the Interstate Commerce Commission in the Memphis-Southwestern Investigation Docket No. 9702, 77 I. C. C. 647, being applicable between points in Arkansas intrastate and is published in Agent Leland's Tariff 114-A, I. C. C. 1645.

The scale shown on carriers' exhibit No. 31 as applying between points in Louisiana is that formerly applicable and as published in Agent Leland's Tariff 105-D. This scale, [fol. 698] however, is not now applicable between points in Louisiana west of the Mississippi River, the Louisiana Public Service Commission having prescribed in their Order No. 296, effective March 23rd, 1925, the scale shown on our exhibit. This scale is published by the individual lines, and reference is made to the T. & P. Railway Tariff 23-G.

The Class E scale shown on the carriers' Exhibit No. 32 as applying between points in Arkansas is materially higher than the prevailing commodity scale, and thus the average of the 5 scales shown by the carriers is materially higher than the proper average as reflected by this exhibit.

Attention is called to the fact that the correct average reflected by this statement shows that the average scale in the 5 states shown is lower than that proposed by the carriers for application in Southern Territory for distances 15 to 170 miles.

My Exhibits Nos. 387 and 388 show the present rates on fertilizers from Norfolk and Richmond, Virginia, to A. C. L.

Railroad and S. A. L. Railway stations in Virginia, as published by the carriers, compared with the Atlantic Coast Line and Seaboard Air Line Virginia mileage scales and the carriers' proposed scale and are filed to show that these carriers did not observe their Virginia mileage scales in arriving at published rates.

My next Exhibit, No. 389, shows rates recently approved by the Virginia Corporation Commission, Case 2496, from Norfolk and Richmond to Norfolk & Western Railway stations in Virginia on their Durham and Winston-Salem Divisions. Attention is directed to the fact that the approved rates are generally lower than the scale proposed by the fertilizer interests.

My exhibit No. 390 shows a comparison of rates on sulphate of ammonia from Birmingham, Alabama, to some of the Southeastern and Carolina points with the proposed fertilizer scales of the National Fertilizer Association and carriers. There are 38 points shown on this sheet. The carriers' proposed scale will increase the present published rates to 21 points and decrease them to 13 points. To 4 points the rates are the same. The National Fertilizer Association scale will decrease the rates to 27 points and increase them to 11 points. Of course, there are other points that receive sulphate of ammonia where there will be increases and decreases by applying these scales.

[fol. 699] My Exhibit No. 391 shows the fertilizer tonnage by states for the years 1909 to 1924, inclusive, and is taken from the Fertilizer Hand Book, which is considered reliable and official.

In connection with that last exhibit that I have just referred to, it contains figures which go back to an earlier period than did the figures of Doctor Davis concerning the proportionate consumption of fertilizer in the different states. In 1914 substantially the fertilizer in Georgia was 1,282,088 tons. The tonnage in North Carolina for the same period was 872,820 tons. In fact, Georgia exceeded North Carolina in every year from 1909 to 1914, inclusive.

We own about 55 plants, but we are not operating all of them at the present. That, partly, is due to the present receivership, and then the output was curtailed to a certain extent. Those 55 plants are pretty widely distributed

throughout the Southern States; we have 6 in Virginia, and a certain number in North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Tennessee.

I am the chief traffic executive of that company. It is a part of my duties to assume responsibility for the entire movement of the product, and the inbound materials of my company, as far as rates and transportation. From that vantage point I am quite reasonably familiar with those operation conditions affecting the car supply used in the assembly of raw materials and the distribution of the finished product.

"Q. Eliminating in your answer conditions as they may prevail at one of the other of two ports, please testify whether or not the period of intensive movement of fertilizer occurs at that time of the year when the volume of business being carried by the carriers is such that they can most easily accommodate themselves to the peak fertilizer movement.

"A. I think that is generally true, especially if cotton moves in great volume to the ports in January, February and March. If the cotton moves, if the preponderance of the cotton movement is earlier in the year, of course there is a different situation.

"Q. That is, speaking of the port?

"A. Yes."

[fol. 700] Well, there is always a number of cars going into interior plants with material, that are available for outbound business, but to be perfectly fair, of course there is a great deal of that material that moves in in the summertime, and there is no outbound movement. I think the carriers have made it a practice for years, especially at certain points, principally at the port of Charleston, for instance, or places where a great many factories are located, to park and concentrate a certain number of cars at the start of the season, but after the movement commences, why, of course, that parking is done away with, and the cars are used as they bring them in, or as they are made empty at the point where they are to be used. Even as to that condition, it is certainly true as well at the interior, to

a certain extent. Other than at the ports, I find the practice to be to return to the plants cars which have been loaded with fertilizer on a great many occasions. I would not like to say on that it is a consistent and regular practice to do so. I have seen lots and lots of cars come back that had previously been loaded with fertilizer, but whether they—I don't think the carriers attempt to make a shuttle movement.

That is the second lot, from 392 to 414, inclusive, is that second batch.

The Southern commodity rate structure, with the exception of only a few commodities, is in such condition that it is very difficult in a proceeding such as this to prepare exhibits enabling an accurate determination of the relationships or differences between commodities. In other words, the rate adjustments on different commodities differ so much and are so responsive to older methods of rate-making as that no very great weight can be attached to any attempted showing of rate differences as between different commodities.

However, it was concluded that at least the effort should be made in this proceeding to prepare and submit various exhibits setting forth what seemed to be the typical rate levels on various different commodities in order that at least some impression might be derived as to the differences between them and fertilizer. We have undertaken such study in a series of exhibits numbered 392 to 414. No particular effort was made to select articles rated lower [fol. 701] or higher than fertilizer. Instead, we have simply selected a representative list of articles and have undertaken to exhibit the typical rates thereon between points in the South. From them at least some impression may be gathered as to the comparative rate level on fertilizer, and such other commodities." (Tes. 970-79.)

Cross-examination:

To explain how this scale that is proposed by the National Fertilizer Association Traffic Committee was arrived at: The guide for it is the Memphis-Southwestern Scale. The two scales were compared and certain percentage reductions were made in the Southwestern Scale and then it was graded a little bit differently, but that was the

basis for the scale. In other words, we took the Memphis-Southwestern Scale as the scale which the Commission had prescribed on fertilizer in Southwestern territory, and then we felt that owing to more favorable transportation conditions in the Southeast there ought to be some deductions to fit that scale to conditions in this country. As to giving any thought to the question of revenue—preserving revenue, in that: Well, we knew of course that this scale would make a reduction in revenue in North Carolina, a reduction in revenue in South Carolina, under the scale existing at the time that it was prepared—that is, prior to the decisions made by the South Carolina Commission, but there may also be some reduction in Georgia and Alabama. I cannot tell exactly how that would work out under a traffic test, because there are a great many rates in the two States, on interstate business, that are higher than the Georgia Scale, or the old Alabama Scale, but there are also rates in effect on interstate business between various States in the South that are lower than this scale. This scale advances the rates in some instances. Now, the only way you could tell about whether the revenue would be preserved, or how much it would be decreased in the whole territory, would be by a fair traffic test. The movement of fertilizer varies so—that is, I mean, it varies from different factories. One year a good big tonnage may move from a certain point, and the next year that tonnage may be decreased very much, and move from another point, and of course that would affect the revenue to a great extent.

[fol. 702] "Q. Now, my understanding is that a traffic test is to be presented in such a way that it will be possible to procure at least a fair approximation of the effect of your scale by applying it to the basic commodities; is that so, Mr. Menzies?

"Mr. Menzies: No, it won't show that information; it will show the effect of the general application of the Royster Scale as compared with the present rates. It won't show the effect of the Fertilizer Association's scale.

"Mr. Cotterill: It is my recollection that an effort was going to be made to make a sub-division of certain mileage blocks, which, if done, would then enable with comparative ease a test to be made as to the result of some other scale.

"Com. Eastman: Well, that is what I had in mind.

"Mr. Cotterill: Yes."

Assuming that is so and that, after applying my scale with that basic commodity, it should be ascertained that it would result in what might be called a substantial reduction in revenue, as to whether I would still advocate the scale then: Well, I think that would depend entirely upon how the reduction in revenue resulted. As far as I personally am concerned, I feel that the carriers can well stand a reduction in revenue on basic commodities, such as fertilizer, and if it is remuneration for the service given for handling this particular commodity. The level of the scale is and is not a matter of importance from the standpoint of the fertilizer companies. The fertilizer, of course, to a certain extent, they can pass on the freight to the consumer, but it affects us in this way: Whenever you make a fertilizer scale so high, or because of—putting it another way—you make the cost of fertilizer so high it reduces consumption; there is a certain distance that you can go, and no farther. Now, a man may take, under favorable conditions, 100 tons, and if the conditions, price, etc., are unfavorable, he will only take 50 tons. It affects us in that way. And then, another thing it affects us in, bringing in materials. It is hard to say if the effect of the scale that we are proposing would be to increase the consumption of fertilizer. Of course, there are other conditions that have great bearing on that, but Mr. Bates introduced an [fol. 703] exhibit there that shows the in-and-out cost of fertilizer at the various plants, and also what the price of fertilizer has been for several years. Now, when you take any commodity that bears a fertilizer cost of possibly one-fifth of the total cost to the consumer, it is bound to affect consumption if you increase that cost, either up or down. Now, how much would depend a great deal upon economic conditions. You take a State that is very prosperous and has good crops and everything of that kind, why, they will buy a certain amount of fertilizer, regardless of price, if they feel that they have to have it. On the other hand, if the conditions are not favorable, why, they would very likely cut down the consumption to the minimum. Now, all of those things have a bearing, but as I said before, there is a limit to where you can increase the price of fertilizer; they will buy a great deal more when it has a reasonable price than they will when it is high. We have taken all of those things into consideration in fixing the

level of our scale. This scale is to be applied both to fertilizer and fertilizer materials, whether outside of phosphate rock and sulphuric acid, which are not involved in this case. Sulphur is included in the fertilizer list. We include sulphur and not sulphuric acid. The conditions are entirely different. Sulphuric acid moves in tank cars and moves to the capacity of the tank, and I think that sulphuric acid ought to likewise move under a less rate than sulphur or possibly any other materials with the exception of phosphate rock. Those two have always been treated separately from the other materials in the fertilizer list. My scale would not apply to them.

It has been the custom in the past in some districts to have different rates on fertilizer and materials; in North Carolina they have a fertilizer material list of 10 per cent less than fertilizer, and it was customary for a great many years to have a less rate on certain fertilizer materials into the Mississippi Valley Territory from both the Gulf Ports and from Chicago and other producing points in C. F. A. and Trunk Line Territory. There are different rates in Florida. They have a scale there on certain materials, my recollection is, 75 per cent of the fertilizer rate, and Georgia makes a special rate on acid phosphate and kainit [fol. 704] of 10 per cent less than the fertilizer rate. So far as our Association is concerned, I do not advocate such a difference. This scale, for instance, which we consider reasonable, we would be willing to accept that on fertilizer, commercial fertilizer and fertilizer materials, with the exception of phosphate of rock and sulphuric acid. (Tes. 982-987.)

As to whether, in applying this scale, we propose that it be applied as a strict mileage distance basis, or do we propose certain groupings of origin and destination points: Outside of the import materials which we think the various ports should be equalized, and outside of districts—for instance, like Atlanta, where there are fertilizer factories located, some at East Point, and some maybe—well, I believe there is a station called Armour, is located, now of course we think that in cases of those kinds, the mileage should apply from the whole group. You might take other instances, like Charleston, where the fertilizer factories are as far as 8 miles from Charleston proper—that is, that is the maximum of the run on down the river,

you know, two or three miles, where of course we think that that mileage, the Charleston mileage or the Atlanta mileage, should apply from all of the points.

Now, there is one other thing that of course is a matter for the Commission to determine, but take sulphate of ammonia, there are certain materials that I hardly think that a strict rigid mileage scale should apply on, for instance, sulphate of ammonia is only produced in the Birmingham district in the Southern Territory. Now, that district to points located on the Birmingham Southern runs up to Chattanooga, Gadsden, and various other points along there. The only other place of production is either north of the Ohio River or north of the Potomac River, Pennsylvania, and all through the West, where steel mills are located, like Gary, and Anniston, Knoxville, and things of that kind. That is the steel centers. If a rigid mileage scale should apply on material of that kind, I don't think it would work out satisfactorily. I think there should be some other way of making those rates. As to being prepared to suggest that "other way": I think possibly the very best plan, for something would have to be tried out, would be possibly proportional rates either to Virginia [fol. 705] Cities and Ohio River gateways, and proportional rates south. The Birmingham rates could of course—strict mileage of course could be applied up to a certain distance, but the rates also ought to be adjusted so as to allow shipments from the Birmingham District to compete with shipments from the Pennsylvania District. For instance, like Pittsburgh, Freeport, New Jersey, Bethlehem, Pennsylvania, and points of production of that kind. I do not know whether it would work our or not to make proportional rates from those districts on a mileage basis. It might, and it might not. I never tried it.

If we are going to make the rates on a distance basis from the Northern producing points, and then adjust the rates from the Birmingham District so that they can meet that competition, it would then be fair to adjust the rates to the Northern producing points so that they can meet the Birmingham competition, where Birmingham has the advantage; I think yet that would be perfectly fair.

"Q. Well, do you think that this Commission will do that?

"Mr. McGehee: Not in this case; that issue is not before you.

"The Witness: The case as drawn is only from the Ohio River and Virginia Gateways.

"By Com. Eastman:

"Q. Would not that be a matter of fixing a maximum, so far as this Commission was concerned, and then if the carriers wanted to make adjustments to meet competition they could.

"A. I think that would be a happy solution. I think the carriers would be very glad to put all of these producing points on a parity. Some of them are located on one line, some on another, some are accessible to all lines; they naturally would like to have plants of that kind also fixed on a rate basis that would allow them all to get into the territory that they naturally should."

[fol. 706] Sulphate of ammonia is about the only material. There is one other material, say cyanimid is only produced in one point, like Niagara Falls, it might also deserve special treatment in some way.

Now, the important rates, our idea is that the ports should be equalized as far as possible. Of course there has to be a limit to that, you could not expect—heretofore, I believe that Charleston, Savannah and Jacksonville, the rates have been the same to Albany, Georgia.

We are proposing the same rates intrastate as interstate. I don't see how we can except any State from that, to be consistent.

I think rates should be the same in all states, especially if the interstate rate is the same. We are not suggesting that there should be any different level of rates in different parts of Southern Territory.

The scale that I have proposed to the Commission is practically a scale that was made by the Alabama Commission; I explained yesterday, the differences. As to whether my whole exhibit shows that that scale is materially lower than the average of the intrastate scales in Southern Territory: I think it is a little bit lower, as a general proposition, but there are places—there are blocks, mileage blocks where it is higher. It is not also a fact that that scale pre-

scribed by the Alabama Commission is the lowest on fertilizer ever prescribed, either by the Interstate Commerce Commission or by any State Commission, and made effective in Southern Territory. Mississippi is a lower one. This scale is lower, of course, as a whole, than the old Georgia scale, but the Georgia scale is lower for short distances. (Tes. 987-92.)

The Tennessee Copper & Chemical Company is not a member of your Association. The Southern Fertilizer Company is a member of our Association. They are represented by Mr. Porter.

"Q. Mr. Bosley, if you go into some other territory to get a standard for measuring your rates, why is it that you go over into the Southwest where there is very little fertilizer used, instead of going to C. F. E. Territory, where the consumption in the State of Ohio alone is more than in Texas, and those other States?

[fol. 707] "A. Simply because there has never been a scale prescribed in C. F. A. Territory. This scale that we selected was prescribed by the Commission, and if it was fair to prescribe a scale of that kind for the handling of tonnage less than you say is taken in Ohio, we think certainly it should be fair in a territory in the South.

"Q. Well, is it not true that at least some of the fertilizer interests and the Ohio Farm Federation and others have asked for a scale in C. F. A. Territory, and all they have asked for is a scale that is materially higher than the one you are proposing here to the Commission for application here in this Territory?

"A. Now, you say it is materially higher; that is the question, whether it is or not. We have asked, or intended to ask for a scale 75 per cent. of the 6th class rates. There are a good many variations of the 6th class rates in C. F. A. Territory at the present. And I do not know whether our scale is to be based on the so-called Disque Scale or not. I know that part of our case has been turned over to another Committee, I have not gone into it, and I am not familiar with it."

I have been connected with the Virginia-Carolina Chemical Company 25 to 26 years. I guess we have had a plant

at Baltimore, Maryland, for over 20 years, I don't remember when we took over the Baltimore plant. Baltimore, Maryland, is the largest single producing point of acid phosphate in this country.

"Q. Is it not a fact that the rates that you paid out of Baltimore from your factory on the Baltimore & Ohio Railroad, and on the Pennsylvania Railroad, are materially higher than the Royster Scale, and that in all these 20 years you have never filed complaint against those rates in that territory?

"A. Now, you are going wrong on that entirely, there is going to be a witness.

"Q. Never filed a complaint—answer the question.

"A. No, sir, never have filed a complaint, but we are going to file a complaint."

I want to explain that part of it now. Prior to the War there wasn't anything wrong with the rates. I did not [fol. 708] seek or desire to leave the impression that the sole consideration leading up to the recommendation of our scale was the Western rates; there were other elements involved in it; that was merely taken as a guide, a sort of a basis to work on, we prepared numerous scales.

As to whether, in consideration of the rates as they now exist in the South on fertilizer and materials, it is the judgment of the Committee that the scale, rate level, if uniformly applied, advocated by the Committee, would in some appreciable measure reduce the apparent existing fertilizer revenue obtained by the carriers: I think it would, but it is hard to tell to what extent. It is expected there would be some appreciable measure of reduction, in justification for which, some of the evidence has already been submitted, has been directed, and some of that which is to come will also be directed.

We submitted one scale to the Georgia Commission in 1921 that I think is even lower than this scale. I know it is lower for possibly 100 miles. The one we originally submitted to the South Carolina Commission is higher than this scale. (Tes. 992-7.)

So far as the order of the Commission goes, I think the territory in this scale is limited to the Ohio River.

"By Mr. McGehee:

"Q. One other question, Mr. Bosley. You spoke about a man buying 100 tons of fertilizer. Mr. Bosley, do you think that if the price of 100 tons of fertilizer was $30.10 per ton, that he would be influenced by buying less than that, if the price instead of being $30.10 a ton was $30.45?

"A. I don't think, Mr. McGehee, that that is a fair way to put it. As I stated, Mr. Bates in testimony showed what the average cost inbound and outbound, fertilizer rates were, which amounts to over $5.00 per ton. Now, when you advance rates on outbound stuff, you also advance rates on inbound stuff."

We do not advance it on sulphuric acid in this; you advance on sulphur. You advance on everything else that goes in, but phosphate rock.

The size of his crops, and the price the preceding year, has a great deal to do with the amount of fertilizer [fol. 709] used by the farmer in a given year, but also the price of fertilizer has a whole lot to do with it. You can make the price of fertilizer so high that he won't buy any. My exhibits don't show that the greatest consumption of fertilizer—submitted by Dr. Davis—has been in the years when the price of fertilizer was the highest, without exception. You will see from my exhibit on tonnage, you will find that there was a greater consumption in the years prior to the War.

I presume, outside of the ports, we are operating in the interior 15 or 20 plants.

In Georgia we are operating Augusta, Rome, Atlanta and Albany. I think that is all in the interior; we have closed down for the present, we may open them up this fall, depends entirely upon conditions. We have closed down Macon, Athens, Newman, Columbus and Americus. In interior North Carolina, we operate at Greensboro, Greenville, Charlotte, Winston-Salem, Wadesboro, Raleigh, Selma, Newbern and Washington.

"By Mr. Dalton:

"Q. Mr. Bosley, you made the statement in response to a question of Commissioner Eastman's, that the custom in

North Carolina is to make the rates on fertilizer materials 10 per cent less than fertilizer. You did not intend to leave the impression in this record that is a custom initiated by the carriers, did you.

"A. I did not say that. I said that was what was in vogue on intrastate business." (Tes. 997-1000.)

I don't think that the custom of making rates on fertilizer material in North Carolina 10 per cent. less than fertilizer rates was initiated voluntarily by the Carolina lines; I think it was an order of the North Carolina Commission. I presume that order was protested by the North Carolina carriers.

"Q. Now, Mr. Bosley, you have introduced a number of comparisons here with the rates on fertilizer in various localities of the South and other sections of the country. In all of those comparisons do you know of a single instance outside of the Royster Scale, any case where the rates have [fol. 710] received both the approval of the Interstate Commerce Commission and the State Commission?

"A. No, that is a rather hard question to answer. I don't know that there is."

I do know that the Royster scale was initiated by the North Carolina State authorities, and received the approval of the Interstate Commerce Commission in the Third Royster Case; I think I went into that rather fully and gave the history of the Royster scale, and why—what the Commission said itself, why they approved it. When I made some reference to a possibility that was contemplated of 75 per cent. of the 6th class rates, I had in mind adjustments in the Central Freight Association Territory.

As to whether I think if we had a fertilizer plant at an interior point in the State of Florida, that we could compete with the plants at the ports of Tampa and Jacksonville, unless we had a material rate that was somewhat lower than the rate on completed fertilizer: That would depend a great deal on the scale of rates they might have on the completed fertilizer. I think it would be very necessary for most any factory now operating at Jacksonville to have a plant in Central Florida, or near Tampa, under our scale. The present Florida scale, as you well know,

is extremely high for short distances, but a very liberal scale for long distances, and I do not know whether I am correct in stating this or not, but the presumption is that it was made in order to give Jacksonville an opportunity to cover the State. There were not any fertilizer factories located in Central Florida in years gone by, and only one or two now. I do not think they produce much, Jacksonville being the only point that produced fertilizer outside of the interstate points, and the scale was made to fit the situation. Under our present scale it is very questionable that we could do business with an interior point in Florida without a material rate against ports of Jacksonville and Tampa; I don't think we could. (Tes. 1000-1002.)

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[fol. 711] Mr. MENZIES, recalled, stated:

It is the purpose of the carriers to continue sulphur in the fertilizer list, and continuing the fertilizer scale as proposed by the carriers.

"Mr. Martin: From South Atlantic Ports and Gulf Ports, including New Orleans. The present through all-rail rates, from Texas and Louisiana mines into the Southeast, they are published as through rates, the general basis of which is the New Orleans combination. If the carriers' scale be adopted, that will bring some increases in the rates from New Orleans. What will be the purpose of the carriers with respect to their joint all-rail rates from Texas and Louisiana into the Southeast?

"Mr. Menzies: We have not determined that question, but I assume the rates will be continued on the combination."

Generally that means that the present rates are increased to whatever extent the Southern rates are increased. (Tes. 1003-1004.)

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A. J. WHITMAN was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

I am A. J. Whitman, traffic manager of American Chemical Agricultural Company, 2 Rector Street, New York. I

have been traffic manager about four years. I have been connected with the traffic department of the American Agricultural Chemical Company about 14 years. That Company engages in the manufacture and distribution of fertilizer throughout the entire South. I cannot say exactly how many plants there are in the South. We estimate about 35 altogether. We have got a good many of them in the South. I do not know as I can guess. My company also operates rather extensively in the Official Classification Territory; I think we have more plants than any other company in the official. In the course of my operations as the chief traffic executive of that Company, I am working in the rate structures in all parts of the country on these articles.

[fol. 712] Approximately, the total annual transportation cost affecting the operations of our company which are paid under my control and supervision is about $7,000,000 annually.

The approximate annual loss and damage claim bill of our company, I should say, the maximum would be $3,000. It may fairly be considered, then, that that ratio of a maximum of $3,000 in claims as against a total transportation bill of about $7,000,000 is fairly typical of the claim expense in the fertilizer industry, so far as concerns damage to the article itself.

There has been assigned to me for special treatment today, the matter of the more or less frequent and persistent reference by the Southern carriers to the comparative rate levels on fertilizer in the Northern and Southern Districts. What I now have to say will be directed exclusively to that subject. I have prepared a statement and I will read it.

(Certain statements were thereupon received in evidence and marked "Protestants' Exhibits Nos. 415 to 435, inclusive, Witness Whitman.")

At the various hearings before the State Commissions in the South and in this present general investigation concerning fertilizer rates, the carriers generally put in evidence statements showing comparisons between the rates in the North and those in the South. While the purport of these exhibits would indicate that the rates in the North are always considerably higher than those in the South, I will show by exhibits following that there are a great many fertilizer rates in the North actually moving a large volume

of tonnage that are lower than the rates in the South; also that the rates on many fertilizer materials in the North are lower than the rates in the South for similar distance. Where the Northern fertilizer rates are higher than the Southern it is important also to understand the reasons thereof. (Tes. 1004-1007.)

It is common knowledge that the rate structure in Eastern Trunk Line Territory is in a very chaotic state and full of inconsistencies and inequalities. There are at the present more than 200 different scales of class rates and as many as 12 different scales on one railroad alone. The [fol. 713] rates on fertilizer in this territory are on a mixed basis, that is, somewhat more than 50 per cent of the business moves on the commodity rates, whereas, considerable tonnage moves on class rate basis. There is no uniformity in these scales either in progression or relationship, and it is possible to select almost any kind of a rate in the present class rate scale or commodity rate scales for a given distance that is desired. This situation is a result of the gradual growth of the rate structure to fit the conditions. Originally in this territory railroads were composed of small units, and as they were consolidated into larger systems, the rates that were then in force were accepted or such rates influenced the rates that the larger consolidated systems adopted.

It is my information that originally rates were made to some extent on mileage, but this basis was absolutely destroyed by carrier, market, canal and water competition and today there is not much trade of the original basis.

There are also a great many rates made on the group plan between such group points as New York, Baltimore, Philadelphia, Scranton, Rochester and Johnstown, etc. The rates are also influenced to a large extent by the so-called percentage scale applying between Eastern Trunk Line and Central Freight Association Territory.

Previous to the horizontal increase in eastern rates on February 23, 1915, the rates on fertilizer in the North were generally lower than the rates in the South.

The rates in the Northern territory have been increased 5, 15, 25 and 40 per cent and have been reduced 10 per cent in their pyramided form represent an increase of 90 per cent and even more to such points that have been affected by the minimum 6th class rate of 7 cents per 100 pounds,

as was prescribed in General Order No. 28 of the Director General of Railroads on June 25th, 1918.

On the other hand, the rates in the Southern Territory since February, 1915, have been subject to two 25 per cent increases and a 10 per cent reduction which results in the Southern rates being but 40 per cent higher at the present time than they were previous to February, 1915.

[fol. 714] In view of these conditions there was no complaint in Eastern territory about the rates on fertilizer until the depression in 1921, when the condition of the fertilizer manufacturer and the farmer became so serious it was felt that a substantial reduction in freight rates should be made. As a result of this, the Traffic Committee of the National Fertilizer Association petitioned the Eastern Trunk Line Association on November 9, 1921, and the New England Freight Association on November 22nd, 1921; to make a reduction in the rates on fertilizer. These applications for reduced rates were denied. At the hearing before the Interstate Commerce Commission in the Reduced Rate Case of 1922, the traffic committee of the National Fertilizer Association asked for a reduction in the rates on fertilizer of from 20 to 25 per cent, but the Commission only authorized a 10 per cent reduction.

Therefore, the fertilizer manufacturers have not been satisfied with the rates on fertilizer in Eastern Trunk Line Territory, Central Freight Association Territory and New England Territory, and are not satisfied with them at the present time.

A complaint has already been filed by the National Fertilizer Association in C. F. A. Territory under Docket 16494, and it is expected that hearings will be set at an early date.

Complaint has also been drawn up and will be filed at once covering the rates in Eastern Trunk Line and New England territories. (Tes. 1007-1010.)

It is a fact, shipping out of Baltimore on the class rates, that we strike practically a mileage scale on a pretty high basis for a comparatively short distance and at the end of that distance we strike a blanket rate, which will be blanketed over a very large group; New York, Pennsylvania, it probably extends, the group does, from 150 to 450 miles. I think the exhibit will show that situation pretty well. Around Rochester, New York, is an important

farming section of New York State. I am not sure that my exhibit will show rates from Baltimore to that part of the country.

I have got 21 exhibits here, and I think we have shown a rather complete set of rates on acid phosphate here, and [fol. 715] I think that covers that section if fertilizer does not, but I think the fertiiizer does go into New York and Pennsylvania, into that section.

Exhibit No. 415 is a statement showing rates on fertilizer materials such as muriate, sulphate of potash, nitrate of soda and sulphur from Carteret, New Jersey, Baltimore, Maryland, Philadelphia, Pennsylvania, points in the States of New York and Pennsylvania, compared with the present Royster scale. It will be seen that the rates on these fertilizer materials as a whole are lower than the Royster scale for similar distances. As a matter of information I have included the rates of fertilizers.

Exhibit No. 416 is a statement showing the third Royster scale, 50 I. C. C. 34, which was in effect prior to the horizontal increases and the present scale. The purpose of that is a key scale for comparison with the other exhibits.

Exhibit No. 417 is a comparison of [redacted] fertilizer rates from Baltimore to stations on the Baltimore & Ohio and Pennsylvania Railroads in the States of Maryland, West Virginia and Pennsylvania, compared with the Royster scale, 50 I. C. C. 34, which was in effect previous to the horizontal increases. This exhibit shows that at that period the rates in the North and South were fairly comparable.

The rates shown to stations on the Baltimore & Ohio and Pennsylvania Railroads, and also the Royster scale, are the rates as they stood in 1915, around that time. The Royster scale was not prescribed until 1918, I think, but this scale shows the rates that were in effect previous to the horizontal increase, that is what I want to show, and that is what the object of it is.

Exhibit No. 418 is a statement covering the carriers' Exhibit No. 82, Witness Gardner, reworked to show the rates in effect previous to the horizontal increase February 22nd, 1915. By comparing these rates with the Royster scale it will be seen that the rates in effect during 1915 in the North were even lower than those in the South.

Exhibit 419 is a statement of fertilizer rates from Baltimore, points in Maryland and Pennsylvania showing the

present rates, those in effect February 22nd, 1915, compared with the Royster scale under heading North Caro- [fol. 716] lina. It will be seen from this exhibit that the rates in the North in 1915 were lower than those in the South.

Exhibit No. 420, Carriers' Exhibit No. 88, Witness Gardner, reworked to show the rates in effect in 1915 previous to the horizontal increases. This exhibit also shows that the rates in the North at that time were lower than Southern rates.

Exhibit No. 421, carriers' Exhibit No. 81, Witness Gardner, reworked showing the rates in effect in 1915.

Exhibit No. 422 is a statement showing the rates of acid phosphate, carloads, in bulk from Baltimore to various points in the Trunk Line Territory, compared with the present Royster Scale.

There is a very large movement of acid phosphate that is used for wheat in the Northern Territory. I don't know if it is predominant.

Having regard to Baltimore, from which there is a large movement of so-called fertilizer, that chiefly consists of acid phosphate and the mixed goods. Of course acid phosphate is made on a very large scale at Baltimore, and just whether the movement to the farm is predominant, really, I could not say, I don't want to say. I will say this, that I know that there is a very large manufacturer of acid phosphate at Baltimore. Now, just whether that is sent to the fertilizer factories for further mixing, or whether the larger part is sent direct to the farmer, I could not say.

This exhibit shows, on this acid phosphate, that to all these points from Baltimore, there is only one rate; a blanket rate. That carries distances, as shown by this exhibit, 146 miles up to 433 miles.

I was going to say that as the phosphate is both a fertiliser and a fertilizer material, and this exhibit shows that, and there is a very substantial movement of this commodity from Baltimore. It will be seen from this exhibit that these rates are very much lower than the Royster scale for similar distance. In some cases as much as $2.20 a ton. That is at the present time. That is a commodity rate on acid phosphate from Baltimore. (Tes. 1010-1015.)

Exhibit No. 423 is a statement of fertilizer rates from Philadelphia to trunk line points showing the present

and 1915 rates compared with the Royster scale shown under heading of North Carolina. The purpose of this [fol. 717] exhibit is to show that the rates in effect in the North in 1915 were lower than those in the South.

Exhibit No. 424 is carriers' Exhibit No. 83, Witness Gardner, reworked to show the rates in effect during 1915.

Exhibit No. 425 shows the rates on fertilizer from Carteret to trunk line points at the present and 1915 rate compared with the Royster Scale shown under the heading of North Carolina.

Now, it will be seen in that statement that they have rates to points in the Central Railway of New Jersey, from Carteret that are lower than the Southern rates, or Royster scale, and when it comes to compare them with the 1915 rates, they were lower.

Exhibit No. 426 shows the rates on acid phosphate in bulk from Carteret to various points in Trunk Line Territory. This statement also shows that the rates are very much lower than the Royster scale and in some instances as much as $2.00 a ton.

Exhibit No. 427, covering the rates on fertilizers from Carteret to points in the Trunk Line Territory compared with the present Royster scale. It will be seen from this exhibit that many of the present rates in the North are lower than the present Royster scale. As a matter of information I have also shown the 6th class rate. This 6th class rate is the rate that carries fertilizer up there, and I thought this would give you a good idea of the comparison in some instances. Of course, that is not the general rule, but in a great many instances where the rates are lower than 6th class.

Exhibit No. 428 is a statement showing the rates on fertilizer, Harrison, New Jersey, D., L. & W. Railroad stations, together with the rates in effect in 1915 previous to horizontal increase, compared with the Royster scale and shown under the heading North Carolina.

Exhibit No. 429 is carriers' Exhibit No. 84, Witness Gardner, reworked to show the rates in effect in 1915.

Exhibit No. 430 is carriers' Exhibit No. 85 reworked to show the rates in effect in 1915.

Exhibit No. 431 is carriers' Exhibit No. 86, Witness Gardner, reworked to show the rates in effect in 1915.

Exhibit No. 432 shows the rates on fertilizer from Hagerstown, Maryland, to Western Maryland and Reading Company railroad stations. Compared with those in effect [fol. 718] in 1915 and the Royster scale under heading North Carolina.

Exhibit No. 433 is the carriers' Exhibit No. 87, Witness Gardner, reworked to show the 1915 rates.

Exhibit No. 434 shows the rates on fertilizers from Syracuse, New York, to stations on the New York Central compared with those in effect in 1915 and the Royster scale under heading North Carolina.

It will be seen that the rate to Fairmont is $1.80, whereas the rate in effect previous to the horizontal increase was 60 cents. The increase in the present rate over the previous rate in this case amounts to 200 per cent. This was brought about by the minimum rate of 7 cents made by the General Order 28 of the Director General of Railroads on June 25th, 1918. This minimum rate of 7 cents resulted in all of the short haul rates on fertilizers that moved on a class basis being increased substantially more than the general horizontal increases and this heavy increase on short haul rates will be noticed in several of the exhibits.

Exhibit No. 435 covers the rates on fertilizers from Buffalo to various trunk line stations shown and shows the present rates and those in effect in 1915 compared with the Royster scale under the heading North Carolina. That completes my statement.

If this proceeding had been instituted and were in the course of consideration in the spring of 1915, it would be the case that the rate level on fertilizer throughout the Southern Territory was either in line with or somewhat higher than the rate level then prevailing in Official Territory. Now, while the rate level on fertilizer west of the Mississippi River, to which reference has frequently been made in this proceeding, was not prescribed by this Commission as early as 1915, if the current rate level west of the River were reduced back by the subtraction of percentages to the 1915 basis, as to whether it then appears that as of that time, the Southern Fertilizer rate level would have been in line with or higher than any other part of the country; I should say they would have been as high as any in the country, if not higher. The present compara-

tive rate levels would indicate in the various ways which these exhibits of the carriers' and I have done, are to be [fol. 719] accounted for almost exclusively by the operation of the various percentage advances which have occurred since 1915.

"Q. And, as I understood you, despite that it is not by any means a proper conclusion to say that these existing Southern rate level is lower than the entire body of the Northern fertilizer rates?

"A. Oh, I don't think they are lower than all of the Northern rates." (Tes. 1015-1019.)

Concerning why I didn't show the rates from Central Freight Association Territory:

That was assigned to another member of the committee, that did not prepare anything on it. It was not assigned to me. I was assigned Trunk Lines, and worked up the Trunk Lines. I think I could have shown to equal satisfaction in the C. F. A., had I been assigned the subject. The general basis for rates on fertilizer in C. F. A. Territory has been 6th class for a number of years, but I think years ago we did have commodity rates there that were very low, and the carriers pulled them out, the fertilizer people, I don't think they had traffic managers at that time, and they were not in a position to protect themselves. I believe the State of Ohio, for example, consumes 375,000 tons of fertilizer. We supply that fertilizer principally from Cincinnati and Cleveland, there are a good many other plants in Ohio, however. There is a very large movement today from Lochland, Ohio, into that territory; that is Cincinnati. I don't know the basis on which fertilizer is sold out in that territory, at least, I have an idea, but I don't know from my own knowledge. We have a plant at Cincinnati and St. Bernard that is our plant located there. I would not be surprised if the Ohio Farm Bureau Federation that brought this complaint that you referred to this morning, obtained about 75 per cent of their entire fertilizers from Lochland, Ohio; I don't know, but I would not be surprised; they don't buy from us. I did not take any part in that case. I know in that case that they asked for 80 per cent of the 6th, the Ohio Farm Federation; we did not.

[fol. 720] "Q. Mr. Whitman, you gentlemen have been postponing filing that complaint, that you were going to file right away, against those rates. Did not you testify down in South Carolina, December, 1923, that you were going to attack those rates right away?

"A. I will tell you, Mr. McGehhe, why we have been postponing that. We thought that for a long time it would be better for us to wait until the Eastern Class Rate situation was straightened out, and then we would have a basis on which we could work for commodity rates. We thought that was the right way, but we have concluded now that we have waited so long that we would file our complaint."

"Q. You are going to ask for 75 per cent of the 6th class?"

"A. We have not decided what we are going to ask."

We said we would ask 75 per cent in C. F. A. and not in the Trunk Line.

Q. Well, now, assuming that the Commission has fixed reasonable class rates in C. F. A. Territory, and assuming that the Commission has fixed reasonable class rates in Southern Territory 80 per cent of the 6th class in C. F. A. Territory 80 per cent of 6th class in Southern Territory would be ridiculous in Southern Territory—ridiculous, because this Southern country is absolutely an agricultural country. Your Northern country is not purely an agricultural country. Probably the biggest part of the people are engaged in manufacturing in the North, and in the South you can see that from your consumption of fertilizer.

All of this question of density of traffic has a lot to do with it. You have got density of fertilizer traffic down here. I should say that that density had a good deal to do with it.

"By Com. Eastman:

"Q. While you are on that point, let me ask you whether you think that 6th class in Southern Territory can fairly be compared with 6th class in Official Territory?

"A. I recall the old figure. I know that the 6th class in Northern Territory is very much lower."

[fol. 721] It is very much lower than the per cent. of first class and the class rates in the North, of course, move the majority of the business, I should say. It is a more im-

portant rate in the North than it is in the South. In other words, there is a much less spread in the North in the class rates and commodity rates than there is in the South. In other words, comparing the Northern Class rates with the Southern class rates, the Northern Class rates are very much lower, whereas, if you compare commodity fates in the two sections, you will find that they are often quite close together, and in some cases the Southern rates are lower than the Northern rates.

That is true on brick, we have got lower rates on brick in the South than you have got in that territory. Possibly some of the Commissioners did not agree with that way of making rates, too, but I think tonnage is quite a vital factor in making rates.

Concerning why it is on all my exhibits except one, I go back to 1915 and show what the situation was in 1915, and why I didn't take your Exhibit No. 422 back to 1915: I intended to do it with them all. Well I don't think that was necessary, seeing that I had made so many other comparisons; my idea here was to show some rates that were lower in the North than in the South at the present time. I have given you a variety of rate exhibits there, showing different situations, and I did not think it was necessary to do it in each and every one. I hope I gave you enough exhibits to cover it. 427 is the same way. I figured this; we had enough of one class of exhibits, so I thought I would find some rates in there. I wanted to show you some rates in the North that were lower than in the South, that was the object; I did not think it was necessary to go back and show it. I would be very glad to do it, because I think it would show very favorably to us. I do not mean to tell the Commission that the rates on which fertilizer is moving today, that the rates on which the actual movement takes place in C. F. A. and in Trunk Line Territories as a whole, that the rates up there on fertilizer are not higher than they are in Southern Territory; I don't believe I stated that. (Tes. 1019-1025).

[fol. 722] "By Mr. Gwathmey:

"Q. Mr. Whitman, the three exhibits that I find you have filed dealing with the present rates seem to be 415, 422 and

426. Now, looking at Exhibit No. 415, what was the basis of the selection of the destination points shown on the exhibit?

"A. Well, here is the way it worked out. I will tell you frankly, so that you will know. I asked my office to get up the information where we had rates in the North—that is, get up some that were lower than Southern rates. I knew that we had plenty of them, I could find a lot more if I wanted to."

I asked my office to look up those, certain territories, for me, and make exhibits of that. Here is what I did. I instructed my office to work out this certain territory where the rates were lower than the South.

"Q. Are these exhibits prepared with any particular reference to the actual movement of the traffic?

"A. Well, they move traffic, yes.

"Q. Do you know that?

"A. Oh, yes, absolutely, we move traffic on them."

As to why is it that on this Exhibit No. 415 nearly all the destination points that I show appear to be points at a considerable distance from Carteret, Baltimore and Philadephia: they happen to be the territory worked up. We did not take the entire territory, but we have other exhibits here that we have covered points nearby, that is, No. 427.

"Q. Now, it has been testified here that the average movement of fertilizer in the South was probably about 100 miles, is it not, and yet on this exhibit, if you look at the rates from Carteret, is it not a fact that in practically every instance in which you find that the Royster scale shows a higher rate than the rates in Northern Territory on this same exhibit, this occurs in the case of longer distances, such as the very first one shown on the exhibit, from Carteret, Baltimore, of 398 miles?

"A. Well, we have plants up there, Mr. Gwathmey, and we actually move business on these rates from these plants, notwithstanding the fact that we have several in that territory."

[fol. 723] It is a fact that in the Northern Territory there are not so many fertilizer plants. There are—they are

not so close together. We ship from Carteret, to New York, Pennsylvania, and we ship from Buffalo, and we have had to divide business with a great many of those Baltimore plants that ship into the Middle West from Baltimore.

I don't know that the movement from Baltimore to the Middle West is almost entirely disappeared. I don't believe it, no.

"Q. Well, read the testimony in Docket 15912.

"A. Well, that is all right; I don't believe we believe it."

As to it being a fact, looking at these exhibits, that the cases in which we find that the rates under the Royster scale are higher than our Northern rates are in the cases of long hauls, as to which, even assuming that there may be some movement under our Northern scale, we know there is no movement under the Royster scale: I think I can answer that by going to Exhibit 427. There are rates from Carteret to points on the Central Railroad of New Jersey, running from 8 to 166 miles, and those rates are all lower than your Royster scale for similar distances. (Tes. 1025-28.)

"Q. Taking Exhibit No. 415, where do you show any rates and the Royster scale on that exhibit, as to which there is any likelihood of a substantial movement under that scale in the South?

"A. Well, I will say this; that our company has moved each and every year thousands and thousands of tons of those materials.

"Q. From Carteret and Baltimore into that territory?

"A. Many thousands."

Looking at Exhibit No. 422, where I undertake to show rates from Baltimore to Trunk Line Territory as compared with the Royster Scale and whether I find that I have used in that exhibit in almost every case distances as to which there is no substantial movement under the Royster scale in North Carolina: Yes. In North Carolina, I suppose.

"Q. Or anywhere else in the South?

"A. I don't know about that."

[fol. 724] I suppose there must be small factories that ship long distances. I think that fertilizer moves on the average a little more than 100 miles in the South, possibly.

"Q. If that is true, if you look at the shorter hauls in these exhibits, ordinarily you will find that your Royster scale is lower than your Northern scale, then you would except these groups possibly that you mention here on Exhibit 427?

"A. Well, there were quite a few points on that exhibit; that is only one. There are three or four roads there that have got lower rates."

On your Exhibit No. 426, every one of the rates shown there are rates of long hauls. It is a fact that there is a very considerable movement of fertilizer from Baltimore, for example, for relatively short distances into the trucking section in the Eastern shore of Maryland and Virginia; I have no doubt there is quite a big movement. It is largely completed fertilizer, too.

We do not show those rates on the exhibit; we did not undertake to show all of the rates up there. I could work up a good many. I could work up the whole thing if I had time and labor enough, I think—I thought I would give you a fairly complete picture myself.

"Q. So far as these exhibits are concerned, you have had them prepared, not for the purpose of showing the destination territory to which there may be the heaviest movement, but rather for the purpose of finding points as to which you could find that the rates were lower than the Royster scale?

"A. I don't know; I think we have given you a fairly representative—while my object was to select some rates that were lower than the Royster scale, I had the idea of disproving the statements you have been making right along, that your rates were a great deal lower down here. I set out with that purpose." (Tes. 1028-1030.)

Redirect examination:

In the Northern Territory, I would say that the hauls of fertilizer are much greater than in the Southern Territory taken as a whole. Under all of the rates which I have shown

[fol. 725] in my exhibits as applicable to Northern movements, there is a large volume of business moving under the rates.

I would say there is a large volume moves under all of those rates in those exhibits. In the preparation of my exhibits and the making of studies, I had before me an apparent claim on the part of the carriers that substantially the entire body of the Northern fertilizer rates at this time is higher than the Southern fertilizer rate level. I think they could find a great many more rates that are lower. It was my object simply to show the fact that there were numerous instances covering important movements as of today, where the rates level even today is lower than for corresponding lengths of hauls in the South. I will illustrate one case I know of. For instance, a movement from Baltimore to Buffalo on acid phosphate. I know of a movement of 10,000 tons in one season there, to that one point.

"Q. As a result of my study, I do not desire, to attempt to make the claim that, taken as a whole, the Northern rate level is lower than the Southern level. That was not my object. It is not my conclusion. In fact, I would say it was higher as a whole. Being higher as a whole, it has been my object to demonstrate how it came about, and the natural causes which produced it; the percentage increases which brought it about.

Mr. Mohr: One question.

When I say that the rate level in the North is higher as a whole than the rate level in the South, I had in mind the general situation. I would say that as a whole, the fertilizer rates in the North are higher than they are in the South. If the rates proposed by the carriers should go into effect, I think that the Northern rates, would still be higher on the whole, but you see the condition that exists there in respect to Texas is really a hodge-podge there now, and one can pick out almost any kind of a rate you want, and make any kind of a picture you want in rates. We have a factory in Baltimore. Ours, perhaps is not typical; there is a lot of tonnage at Baltimore, and the destinations would be quite different from ours.

In my opinion the average haul is, I should say, probably 250 to 300 miles. (Tes. 1032-34.)

(Witness excused.)

[fol. 726] D. A. DASHIELL was thereupon called as a witness and, having been first duly sworn, testified as follows:

My name is D. A. Dashiell, Norfolk, Virginia. I am chairman of the Traffic Committee of the National Fertilizer Association, and traffic manager of the F. S. Royster Guano Company. Our company has central headquarters in Norfolk. It operates extensively throughout the South. It operates about 14 plants in the South.

"Q. Mr. Dashiell, there arose in connection with the evidence of Dr. Bates the technical question concerning an exhibit introduced through him as to which he was not thoroughly informed. In order that the record may be rounded out, I wish you would please explain the circumstances that prompted the showing of a movement and a rate on sulfuric acid from Columbia, South Carolina, to Charlotte, North Carolina, in the case of your company, although in the case of the fertilizer manufactured at Columbia and at Charlotte by other companies, the movement was shown as from Copper Hill, Tennessee?

"A. I will say that the preparation of those exhibits was distributed among different committee members. I was assigned the Charlotte, North Carolina, and was not assigned the Columbia, South Carolina. We manufacture sulfuric acid at Columbia, and we use it there, and have need also for it at Charlotte."

We manufacture our own acid, and we use the Columbia output of sulphuric acid at both Columbia and Charlotte. However, it is in the case of our company alone, having plants both at Columbia and Charlotte that such a movement occurs, and by far the greater majority, I would say 75 per cent of our acid requirements of Charlotte are supplied by Columbia. There is some slight movement, comparatively speaking, from Copper Hill to our Charlotte plant, but I felt in preparation of the exhibit, that the fair thing to do was to show the movement from Columbia rather than show a higher rate from Copper Hill. That is to say, to show it as it actually is.

I could have shown, fairly shown, against that sulphuric acid, the freight rates which we paid on the pyrites and sulphur, and the small quantity of nitrate of soda used in

[fol. 727] the making of the sulphuric acid at Columbia, but I did not do that. I simply took the rate from Columbia to Charlotte. For reasons of its own, whether for economy or otherwise, it just happens that in the case of our company it has been pursuing the policy of manufacturing its own acid at Columbia and using the surplus in its plant operations at Charlotte.

"Q. But, what is the normal condition at both points as to the use of acid from Copper Hill, Tennessee?

"A. I believe that most of the factories at Columbia produce their own sulphuric acid."

I would not like to state that definitely, but I know that one or two others of the other companies do, the I. A. C. Company does not, I believe; they get their acid largely from Copper Hill. That would apply to Columbia; I would say that generally throughout the South fertilizer plants are supplied from Copper Hill. The closer you get to Copper Hill the more that is true. The closer you get to the ports, the less it is true.

In preparing the Montgomery exhibit, I used the tankage movement that actually takes place. In other words, I took the point from which we naturally secure tankage, which is Carrollville, Wisconsin, and moved it into Montgomery, and I show a rate of $7.10. I might say that since the movement in the spring, that rate has been advanced to $7.83, so that really the rate is higher now.

I think that's the same as the rate from Chicago, the $7.10 rate; I could not say definitely about that.

We have bought for several years the tankage, this process tankage, from a concern in Carrollville, Wisconsin. They collect waste materials in Milwaukee, Carrollville is a suburb of Milwaukee, and the material is made into a tankage and shipped out. That concern there draws the raw material there, this tankage, from surounding areas, and is expressly engaged in the business of making tankage at Carrollville. It was asked why the same material was not purchased at Louisville; I don't know that there is a tankage plant of that character in Louisville, but nevertheless we find it advantageous to buy it in Milwaukee, and pay the freight from Milwaukee to Montgomery. (Tes. 1034-39.)

[fol. 728] Tankage manufacture does not occur at all packing centers; this has nothing to do with the packing tankage at all. This is process tankage; it is manufactured from waste materials, of various sorts. Leather and hair and wool waste, and materials of that sort. The source of that character of tankage are not numerous in this country; the only plants that I know of in the C. F. A. Territory is that one at Carrollville, and a plant at Lochland, Ohio, and one in St. Louis. We have a plant in St. Louis, but it is not in operation at this time.

We produce that on a large scale at Norfolk.

Now, in regard to phosphate rock, the question was asked, why we did not use the Tennessee rock, why we mined our own phosphate rock in Florida, but did not have any mines in Tennessee, and by reason of purchasing rock on a large scale in Florida, we supply all of our plants, and we find it to our advantage to pay the higher rate from Florida to Montgomery than would be applied from Tennessee. I may say further, that there is a difference, I understand, in the conditions of the rock produced in Florida and in Tennessee, and our equipment is all lined up, you might say, to use rock produced in Florida, and they have not got the best results from Tennessee rock.

"Q. Broadly speaking, as explaining the whole composition of that exhibit submitted through Doctor Bates, was the effort made to show actual conditions as they are in the rates of all of the companies?

"A. I absolutely used actual movements."

There are particular reasons whether by trade advantages or manufacturing or producing costs, which account for what might on the fact seem to be factors.

During the fertilizer shipping season I give pretty close attention to the question of car supply at our different plants. I may state particularly, first, in regard to Norfolk. We have no car difficulties to speak of in Norfolk. Usually the belt line on which most of the fertilizer plants are located take care of the car requirements, and this is frequently done, I have been told, by the belt line people without having to call on the trunk line railroads largely for cars. Now, at our own plant we have materials coming [fol. 729] from 10 to 20 per cent of car requirements are taken care of by cars that we have made empty ourselves.

Now, at Norfolk, as I say, the belt line reaches all the railroads, all, I believe, except one, the V-C plant are on that line, and the belt line serves the lines from the North and the West, and form the South and there is almost always a very liberal empty car supply right there. There may be occasions where the railroads will bring a few trainloads of cars in, but my observation has been that that is simply from short distances, and maybe they could not use the cars at those particular points. Now, there is a heavy lumber movement into Norfolk from North Carolina; there is a heavy cotton movement, and a heavy tobacco movement. The Imperial Tobacco Company has two large export warehouses and terminals served by the Norfolk Southern Railroad, and they have a great number of cars coming in. In addition to that, there are shipments in large quantities of cotton piece goods coming in from North Carolina points. Now, all of these articles in large part they are moved out coastwise, or by foreign steamers, making large numbers of empty cars which are available for fertilizer loading. Now, in regard to our plants at interior points, we have inbound movement of phosphate rock, sulphate of ammonia, tankage and other materials that make empty cars, and our car requirements in some degree are taken care of in that way, but in regard to the situation generally there are fertilizer plants throughout the territory. Wilmington might ship into Charlotte's territory, and the cars made empty would be available at Charlotte. Charlotte would ship back into Wilmington's territory. You will find that going on all through the territory, and I doubt very seriously that you would find really a car shipped from Wilmington any great distance, that would be returned to Wilmington.

I believe that at Wilmington and Charleston—we do not have plants at either point, but I have understood that they do accumulate cars at the beginning of the season, but after the season gets under way, I don't think that is necessary.

As a rule, the car requirements at an interior plant are not great. I would say that from 10 to 30 cars a day would [fol. 730] take care of the ordinary interior plant, and I don't think it would be a serious problem to supply that number of cars.

On those operating matters it is my observation that season of the year during which the heavier movement of fertilizer occurs, such as that it conflicts least with the heavier movements of other commodities. I think it true that it is at that time of the year when the principal movement of fertilizer comes, that the carriers are in, perhaps, best position to handle it, and if it was not for that movement at that particular time, there would, conceivably, be something in the nature of a slack period resulting, maybe, in a car surplus.

I have prepared an intimate study in regard to loadings, minimum weights, and the legitimate consequences which ought to follow from the definite purpose of the fertilizer industry to bring about an advance, both in the minimum weight and the average loadings per car from this time forward. (Tes. 1039-44.)

(The statements were thereupon received in evidence and marked "Protestants' Exhibits Nos. 436 to 440, inclusive, Witness Dashiell.")

My first exhibit, which is number 436, shows the carload minimum carried in fertilizer tariffs applicable between points in the South. It will be seen that generally the tariff minimum is 15 tons, although there are some tariffs carrying minimum of 10 tons, and in Alabama the minimum is 20 tons. Some fertilizer material tariffs carry minimum of 20 and 25 tons. Imported materials move through Charleston to South Carolina points, taking minimum of 10 tons, and considerable tonnage is affected, particularly nitrate of soda. Charlotte, North Carolina, to South Carolina points, Danville, Virginia, to North Carolina and South Carolina points, Columbia, South Carolina, to North Carolina and Georgia points, Savannah and Brunswick, Georgia, to South Carolina points, Armour, Atlanta and Athens, Augusta and Elberton, Georgia, to South Carolina points, which carry 10 tons minimum, move an important tonnage.

In North Carolina, on intrastate shipments of the fertilizer material, rate of 10 per cent less than fertilizer, takes [fol. 731] a minimum of 25 tons. In regard to Florida, my exhibit shows the tariff applying on interstate traffic, intrastate traffic moves on any-quantity rate.

I want to call attention to the number of points that take the 10-ton minimum at this time.

My Exhibit No. 437 shows the average car loadings of fertilizer at representative manufacturing points in the South and at the outset, I wish to direct particular attention to the average carloading on shipments from Norfolk, Virginia, because the carriers have testified that their idea of proper rates on fertilizer in the South is the scale which was prescribed by the Interstate Commerce Commission in 1918, Docket 7573. Since the decision of the Commission, these rates have been plussed 25 per cent on two occasions and reduced 10 per cent, making the present rates 42 per cent higher than the Interstate Commerce Commission's figures.

As an illustration, take the rate from Norfolk to Rocky Mount, North Carolina Docket 7573, rate $1.90 per ton, present rate $2.70 per ton. In addition to the increase in the per ton rate from Norfolk to Rocky Mount, North Carolina, there has been an increase of 35 per cent in the average load per car, causing a material increase in the per car revenue.

The minimum weight was prescribed governing the prescription of the Royster Scale, in Docket 7573—15 tons. This increased revenue per car is illustrated by again taking the rate from Norfolk to Rocky Mount, North Carolina, Docket 7573 rate, $1.90 per ton, average car loading 17.02, which was the car loading of record in that case, produces $32.34 per car revenue. For 116 miles the per car mile revenue is $27.88. The present rate from Norfolk to Rocky Mount is $2.70 per ton. At an average carloading for March 1925 of 23 tons, the per car revenue is $62.10 or 53.53 cents per car mile. It will be seen from this that the revenue per car and per car mile from Norfolk to Rocky Mount, North Carolina, have been increased 92 per cent. When the carriers advocate the Docket 7573 rates, they should bear in mind that the decision in that docket was made on the record that showed an average carloading of 17.02 tons, as of that time.

[fol. 732] That was the average carloading from Norfolk to North Carolina points for the year 1913, which information I prepared.

The carriers could reduce the per ton rates of the Royster scale 26 per cent and still earn per car revenue equal to the present Royster rates figured at per car loading of 17.02 tons. It will be noted that the average carloadings from the South Carolina plants are about the same as from the Norfolk plants and the North Carolina plants. In Georgia it will be seen that the averages are generally higher than in Virginia, North Carolina and South Carolina. The average car capacity on interstate shipments reflects the tariff minimum to South Carolina points of 10 tons; in Alabama the averages are higher than in the other States. From plants moving a large part of the tonnage the averages are from 24 to 29 tons. The minimum became 20 tons in Alabama in July, 1924. That was one of the incidents of the revision of rates in Alabama under attack in this proceeding. Prior to that time the minimum weight in Alabama was 15 tons.

As shown above, the average carloading from Norfolk to North Carolina points has increased 35 per cent. This is illustrated by again taking the per car revenue on shipments from Norfolk to Rocky Mount, North Carolina, at rate of $2.70 per ton, 17.02 tons, would produce per car revenue of $45.95; using a rate of $2.70 per ton, 23 tons, would produce a per car revenue of $62.10, an increase of $16.15 per car, or 35 per cent.

Add the average car loading in 1913, then 23 tons instead of 17.02 tons, the Interstate Commerce Commission would doubtless have prescribed a lower per ton rate.

If we were to assume that the per ton rates of the present Royster Scale are a fair basis on an average carloading of 17.02 tons, then when the carriers are given an average loading of 23 tons, the rate per ton might be reasonable reduced.

My Exhibit 438 shows the number of cars containing fertilizer shipped from important manufacturing points for each tonnage unit. It indicates at a glance that numbers of cars are shipped containing less than 20 tons, and the value to the carriers of an increase in the tariff minimum [fol. 733] to 20 tons is readily apparent. From Norfolk, 31 per cent of the cars shipped during March, 1926, contained less than 20 tons.

There is throughout the exhibit to be a considerable number of cars shown to have weighed exactly 20 tons. You

will notice the greatest number of cars appear in multiples of five. You will notice 15, 20, 25 and 30. Well, in the States other than Alabama the minimum is 20 tons—the minimum is 15 tons—in Alabama it is 20 tons. I don't just understand what your question is. I would answer your question by saying that the people to whom we sell doubtless adjust themselves to taking fertilizer in units of 20 tons, to a large extent.

"By Com. Eastman:

"Q. I notice there are three cars loaded to 50 tons—was that some special material that loads that way?

"A. Mr. Commissioner, my figures do not include fertilizer materials. These are finished fertilizers. Now, we have a movement of fertilizers to some storage warehouses. For instance, there is a storage warehouse that we use, or at least that we ship to, at Henderson, North Carolina. Now, we might send 100 tons or 200 tons of fertilizer to that warehouse, and we will load as much in the car as we can get. Now, that is distributed locally."

Heavy cars, you take these big automobile cars, and furniture cars, it is possible to load up to 50 tons.

I would say that we get a greater number of 80,000 capacity cars; there are some 30,000 capacity cars. I mean 60-ton capacity cars. I think it is generally possible to physically load fertilizer to the capacity of the car, but it is not always feasible to do that. Sometimes fertilizer will become hard when numbers of bags are piled on the bottom layer, and commercial conditions, I believe, have adjusted themselves to take a minimum of 20 tons, and I doubt whether it would be advisable to go beyond 20 tons as a car minimum. It is doubtless true, when we fix the minimum at 20 tons, even there that is a minimum dictated quite largely by trade conditions rather than by physical loading conditions.

[fol. 734] The trade has not as yet accommodated itself to the 20-ton basis; I believe they are working to that end. In making this effort to accommodate the trade to a 20-ton basis, it is my belief that it will result in a considerable increase in the actual average loading as it takes place today. Along that line, I took the shipments that I have in this exhibit from Norfolk, and eliminated the cars containing less

than 20 tons, and it produced an average for the remaining tonnage of 26.4 tons. In regard to the question of car loading, I might say this, that the fertilizer manufacturers have been gradually working to the end of increased car loading. Ten years ago 10-ton minimum was pretty generally the practice, was pretty generally carried in the tariff, but the manufacturers have cooperated with the carriers in every way towards increasing the loading, and I believe we are seeing the effect of it. (Tes. 1054-1051.)

In coming forward here with the tender of cooperation on the part of the industry to accom-odation of such industry to a 20-ton basis, that in itself involves a considerable change in the existing trade practices. It holds forth the promise of a rather considerable material average increase in the existing average load per car, and is understood to be such and intended to be such in the determination of this rate level.

"By Com. Eastman:

"Q. When it comes to the physical loading, if you could not load 30 tons to the car?

"A. Yes, sir, that is true, sir."

I answered a minute ago that with a 15-ton minimum our average from Norfolk was 23 tons. Now, when I eliminated cars containing less than [illegible] tons, it produced an average for the remaining tonnage of 26.4 tons. So if the minimum were to be made 20 tons, the average would be at least 26 tons, or in excess thereof.

Fertilizer moves, however, by actual experience, a proven fact, that where the carload minimum on fertilizer has been increased, the actual loading per car has been proportionately increased. The experience at Norfolk shows that in 191[illegible] the average car loading was 17.02 tons, with a tariff [fol. 735] minimum 10 tons, and in 1915, with a tariff minimum of 15 tons, the average load per car was 23 tons on complete fertilizer.

My Exhibit No. 439 shows from actual experience the results flowing from an increase in the tariff minimum. From Norfolk, an increase of 5 tons in the tariff minimum produced a 35 per cent increase in the car loading. From Columbia, South Carolina, 20.3 per cent, from Hartsville,

South Carolina, 11.5 per cent, and from Montgomery, Alabama, 13.3 per cent. I might say in that connection that the increase from Norfolk of 35 per cent represented a development of several years, whereas, the increased loading from the South Sarolina point was one year against another, and the same is true regarding Montgomery, Alabama. There have been just these few instances where the tariff minimum has been increased within the last two or three years, and for that reason this exhibit could not be more elaborate, but I believe that these four plants that I have shown here are typical of the situation.

To show the value of the Alabama average car loading, take for example, the experience of the F. S. L. Guano Company, of Montgomery, Alabama. The average for all single lines 98.6 miles. The present rate for this distance $1.95 per ton, using an average carload of 29 tons produces $56.55 per car revenue, or $57.35 per car mile. By agreeing to an increase in the carload minimum on fertilizer throughout the South to 20 tons, the fertilizer manufacturers are convinced that they are making a material contribution towards economical operation on the part of the carriers. Between certain points it mean an increase of 10 tons in the tariff minimum, and in other instances an increase of 5 tons. Experience has shown that an increase in the tariff carload minimum of only 5 tons has resulted in increased loads per car of as much as 35 per cent. Increasing the tariff minimum from 10 to 20 tons, necessarily increases the actual carloading considerably. Increased car loading means increased efficiency of freight cars, and an immense saving is effected.

There was consumed in the South during the year 1924 more than 4,000,000 tons of fertilizer, which, according to the average car loading in 1913 would have required 235,000 freight cars; at the 1925 car loading, 173,913 cars would be required, a saving of 61,087 cars.

[fol. 736] The 235,000 cars used for the transportation of 4,000,000 tons of fertilizer at the 1913 average loading, would, on the 1923 average loading, handle 5,405,000 tons of fertilizer, and the 61,087 cars diverted from fertilizer traffic would be available for the handling of 1,403,000 tons of other freight, at an average car loading of 23 tons.

My Exhibit No. 440 deals with the average weighted

hauls, carrying shipments of fertilizer from plants throughout the South during the month of March, 1925. The exhibit speaks for itself.

Generally the average haul from the ports is in excess of 100 miles, while the average from the interior plants is less than 100 miles.

Well, if the figures contained in this exhibit are an indication of the facts, making allowance for the volume of business shipped from the ports, it is probable that the average haul would be about 125 miles; that is, if you would lump all of the tonnage. I think it would be in the neighborhood of 125 miles. I have not made that calculation. It is just an impression, that is all it is.

My testimony and exhibits regarding the average carload and average hauls, have covered complete fertilizer shipments only. Fertilizer materials moving to fertilizer plants load considerably heavier than does fertilizer. I took 116 cars of fertilizer materials, moving to various plants, and the average load was 35 tons. Materials are usually ordered in 100 or more tons—in units of 100 or more tons—and the possible loading is usually only limited by the capacity of the car.

I would say that on fertilizer materials, except possibly nitrate of soda, 25-ton minimum can easily be loaded. In regard to nitrate of soda, I believe there is some movement in 15-ton lots, and maybe in 10-ton lots, or where they can get the carload rate, there is some less-carload. There is some substantial movement of nitrate of soda for direct application to the soil by the farmers, and in those cases, the units of purchase are smaller than the commercial units used in the manufacture of fertilizer.

Usually fertilizer materials move from one plant to another, or from the ports to the plants, and as I have stated before, they move in large quantities, and usually the cars can be fully loaded.

[fol. 737] The lengths of hauls of fertilizer materials vary considerably. Materials will frequently move distances ranging from 100 to 1,000 miles. This is due to the fact that certain materials, such as tankage, fish scrap, etc., are produced at a few points where crude materials can be secured, and the finished product is shipped over a wide territory. Sulphate of ammonia is produced generally at the

steel plants, and potash and nitrate of soda, as well as other imported materials, move to the ports and are distributed throughout the territory. The range or distribution of fertilizer materials is materially greater than the hauls of completed fertilizer. That is all. (Tes. 1051-56.)

Cross-examination:

These exhibits include only the complete fertilizer and do not include the materials. The figures in Exhibits 437 and 438 do not include any shipments from one of our plants to another. They refer to shipments entirely from our plant to our customers. The same figures were used in working up both exhibits. A great many people will order fertilizer in as small units as they can get it. With a tariff minimum of 15 tons, you will naturally have just a great many orders of 15 tons, but if that minimum is advanced to 20 tons, those same people will order 20 tons. It may be true that several small farmers combine and buy a carload of fertilizer, but I do not think to any great extent it may be done. I don't know if that is done to any extent. If that is a very common practice, it is not to the advantage of those farmers to buy a 15-ton car rather than a 20-ton car; they could get another fellow to go in and take the extra 5 tons; usually when a car of fertilizer is shipped to a merchant it is generally unloaded by 5 or 6 people. I don't think these realitvely large number of 15-ton shipments is explained by any two or three farmers getting together. I think, if two or three farmers get together, they would order in larger units than 15 tons. I think that 15-ton shipments go to one individual; I have not investigated it, but I could find out if you think it is material.

[fol. 738] This compilation does not include acid phosphate. If it included acid phosphate, you would find a much higher per car loading. You would find fewer cars moving at 15 tons, because acid phosphate seldom moves in just 15-ton lots. You would find a person placing an order for 50 tons, or 100 tons of acid phosphate. You might find a person ordering just 15 tons of acid phosphate. I know that. I don't think it representative that several farmers combine and order 15 tons of acid phosphate and mix it on their own farms, but I am not in the sales department. If

I included in this exhibit shipments of materials such as acid phosphate, etc., and other materials which one or two farmers buy by the carload and mix themselves, that the number of 15-ton shipments will show even greater than it does on this exhibit; because if you will examine the tariff you will see that there are some material rates lower than the fertilizer rates, that carry a 25-ton minimum, some few that carry 20, and some 25. A person that is going to order acid phosphate has a material rate, and he will generally order that minimum to be 25 tons. (Tes. 1057-60.)

As to how I arrived at my determination to use the tariff shown in Exhibit 436: I went through the tariffs, and took the information from the tariffs. I did not attempt to show all of the tariffs in effect throughout the South. My purpose was to show in condensed form the tariffs that would show the situation throughout the South, without referring to each individual tariff. You will find that in North Carolina, intrastate, I used Southern Railway tariff. You will find in South Carolina, intrastate, I used—I think A. C. L. tariff, and I could have shown all of the tariffs, but I did not think that was necessary.

The exhibit that Dr. Bates filed, referring to destination points as follows: Norfolk, Charlotte, Charleston, Spartanburg, Hartsville, Augusta, Atlanta, Columbia, South Carolina, Americus, Montgomery, Mobile, Memphis, Jacksonville, and Charleston, South Carolina: I will say that the material in that exhibit was prepared by the different companies. We assigned a few points to each company. Now, I prepared the information regarding Norfolk, Charlotte and Montgomery. The Virginia-Carolina Chemical Co. prepared it regarding Wilmington, Mobile and Jackson, Miss. Swift & Co., Wilmington and Atlanta, [fol. 739] The International Agricultural Corporation, Columbia, S. C., Hartsville, Spartanburg, Augusta, Atlanta, and Americus, Ga., and Armour & Co., my recollection is, Jacksonville and Nashville, if they appear there. I was giving you those from memory; I remember we assigned information regarding all of these various subjects, average haul, and average carload, and that material too. We can give you the information at Wilmington and at Nashville. (Tes. 1060-63.)

Also the information at Montgomery for some other plant than the Royster plant. Armour Fertilizer Works will supply the Nashville information, I presume, We endeavored to make the exhibit representative of the two situations. In regard to the exhibits that I prepared, and I believe it is true of the others, the rates shown in that exhibit cover actual movements—either a substantial part of the tonnage, or the entire tonnage.

We show both of the plants of the I. A. C. Co. and Swift & Co. at Atlanta to give you the true situation at that point. Now, the I. A. C. Co. secure their sulphuric acid almost entirely from Copper Hill. From Copper Hill to Atlanta they have a rate, I believe, of $1.75 a ton. Now, while they have that advantage to Atlanta, when they use acid at some other point, take in the neighborhood of Montgomery, they pay a rate of $3.40, the comparison would not be quite so favorable to them. Swift & Co.'s inbound charge is $3.65, the I. A. C. $3.19; Swift, $2.54, and the I. A. C. $1.67, indicating that Swift & Co. were sending theirs out longer distances.

Exhibit 440, in connection with Dr. Bates', will show the differences in the average distribution by the two companies at Atlanta. Atlanta, Ga., the I. A. C. Corporation, the intrastate single line average, weighted haul is 44.7 miles, while the intrastate single line haul of Swift & Co. is 89.4 miles. That comparison is true in regard to the other hauls.

The rate to Montgomery from the Mt. Pleasant District is $2.82 a net ton, the same as to Mobile shown on sheet 6 of the exhibit. The rate from Florida to Montgomery is $3.82 per net ton; there is a difference of $1.00 in the phosphate rock; that would mean about 25 cents in the ton of fertilizer. This phosphate rock used is not the same in both [fol. 740] cases; the rock they mine in Florida is known as 68, B. P. L., low grade rock; I understand the rock produced in Tennessee generally is a higher grade.

"By Mr. Mohr:

"Q. Then you could obtain a higher grade rock at a lesser price, but for the fact you have your interests in Florida, producing rock?

"A. Lesser freight rates.

"Q. Yes.

"A. It would amount to about 25 cents a ton.

"Q. But it would amount to $1.00 a ton in the calculation made in this Exhibit 325?

"A. On phosphate rock. $1.00 a ton for phosphate rock, but not for acid phosphate." (Tes. 1063-66.)

As to what fixes or controls the quantity of fertilizer loaded in those cars less than 20 tons: We fill the orders as they are given to us, but we frequently importune our customers to order in larger units. The orders are filled as they are placed. The orders are predicated upon the desires of the receivers of fertilizer; I don't know just what their needs are. There may be some difference between their desires and their necessities.

If the carload minimum is advanced to 20 tons, and the receiver of fertilizer realizes that he can only secure a carload rate by ordering in 20-ton units, he will generally order 20 tons. I think really the reason that numbers of cars of 15 tons of fertilizer are ordered, is simply because the tariff minimum is 15 tons. Now, there will be some objection on the part of the people to the higher minimum, but I believe in the interests of carriers' efficiency, we should work to the end of securing 20-ton minimum, and avoid waste space in cars to the extent that we can. I say the usual buyer of fertilizer buys a considerably greater quantity each year than 20 tons, and I believe that he could accommodate himself to ordering in 20-ton units. The difference of 5 tons in a farmer's needs would not be a very great item. We are not starting something here to force the farmer's hand. It is a desire to utilize the carriers' equipment to the best advantage we can. This is our only desire. (1066-69.)

[fol. 741] There is no other desire than to fully utilize the carriers' equipment. It would be expensive to us to load 20 tons in the car as against 15 tons carload minimum.

Referring to Exhibit 325, pages 4 and 5: I have the I. A. C. at Atlanta, page 4, and Swift & Co. in Atlanta, page 5. So far as the movement of the acid phosphate inbound is concerned, it appears that the freight charges are exactly the same, $188.99, and then right under that, aver-

age inbound cost per ton in cents, which is the same in each instance, $3.02. Then appears the average outbound costs per ton in cents, $1.67, in one case, and $2.54 in the other. You take in the case of the I. A. C. Co. the average outbound cost per ton in cents, $1.67, the average per ton in cents, of $4.69, that represents the average in and outbound cost of acid phosphate. Then farther down, where you find the figure of average per ton in cents $4.68, that is complete fertilizer. As to how it happens that the outbound cost of acid phosphate is exactly the same as the outbound cost of the complete fertilizer and whether that means that I assume that the shipments will be made from the same points in both cases: Yes. That figure of $2.54 was the average outbound freight cost on shipments to customers, including both mixed fertilizer and acid phosphate shipments. The average inbound cost of the complete fertilizer was $3.19 in the case of the I. A. C., and $3.65 in the case of Swift & Co. The freight charges inbound on the acid phosphate are exactly the same; their source of phosphate rock and sulphuric acid were the same, but the other materials different. (Tes. 1069-74.)

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Tridwell Rice Crown was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

My name is Tridwell Rice Crown, division superintendent of the American Agricultural Chemical Company, headquarters Atlanta, Georgia. I have been division superintendent of that Company for three years. I had no prior experience with other fertilizer companies, I had [fol. 742] superintendency of plants for 10 years for this company.

Under my immediate jurisdiction there falls the problem of cleaning and conditioning freight car equipment tendered to me for use in the transportation of fertilizer.

At every plant, depending upon the size, we employ from two to four men and their exclusive work consists in cleaning out the refuse, trash and so on, driving down nails and

carting the material away that is removed, and disposing of it, in teams or trucks.

I approximate the average cost of that cleaning which has to be done in the manner I have described as from 40 to 50 cents per car. (Tes. 1074-6.)

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C. W. HAYWARD was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

My name is C. W. Hayward, residence Meridian, Mississippi. I am representing the Meridian Traffic Bureau. I might say at the outset that the Meridian Fertilizer Factory is in accord with the case as presented by Mr. Cotterill on behalf of the National Fertilizer Association, and it will be my purpose not to enter into an extended discussion of the rate situation, or of the proposals of the carriers, except to submit two small exhibits showing the present rates from Meridian to points in Alabama on the Alabama Great Southern, the Southern Railway, and the Mobile & Ohio Railroad, as compared with the carrier's proposed scale, and the National Fertilizer Association's proposed scale.

Now, I will submit these Exhibits Nos. 441 and 442.

(The statements were thereupon received in evidence, and marked "Protestants' Exhibits Nos. 441 and 442, Witness Hayward.")

We are in accordance with the principle of equalization, which we understand it is the purpose of the Commission to effect by this investigation. We have discriminations against Meridian not only in the intrastate rates in Alabama, but also in the interstate rates from manufacturing points in Mississippi and from points in Georgia.

[fol. 743] In my exhibit 442, I show a comparison of the rates from Meridian, Mississippi, to points in Alabama and Georgia, compared with rates for similar distances from Montgomery and Atlanta to points in Alabama, Georgia and Mississippi.

The rates as shown from Montgomery were taken from the Atlanta & West Point Fertilizer Tariff, 1035-B, I. C. C. 1145, and are specific rates. Since this statement was prepared, I understand that the Alabama Commission has adopted a scale of mileage rates, and there may be some differences as between the rates I have shown and those adopted by the Commission, if so, I will submit a correct exhibit. (Tes. 1076-1078.)

Fertilizer was in the Meridian Case. As to what was done with the rates on fertilizer in the prescribed zone in Alabama in that case: I will explain that. On my Exhibit 441, the rates to Alabama Great Southern and Southern Railway stations, and Mobile & Ohio stations as shown, were the rates as prescribed by the Commission in I. C. C. Docket 9560.

They are the rates that now apply from Meridian to the zone covered by the Commission's order in the original Meridian Case, 200 miles from Meridian by way of the lines of the respective defendants. Now, those rates, so far as the jobbing points in Alabama, affected by the Commission's order are concerned, are equalized with Meridian, but it will be recalled that the Commission has only recently voided their order in the Meridian Case. Now, we apprehend that it is entirely possible and not altogether improbable that rates will be established by the State of Alabama or the Public Service Commission of Alabama within the Meridian zone that will be in accord with the scale that was prescribed by them for application between other points in the State, and if that is done, it will be easy to see the effect on Meridian.

The last column, which is the National Fertilizer Association's proposed scale, and is the same as the Alabama scale, will indicate to what extent we will be affected unless an equalization is accomplished by an order of the Commission, and the Alabama Public Service Commission adopts these rates within the Meridian rate case zone.

In my exhibit No. 442 it will be seen that the rates from [fol. 744] Montgomery and Atlanta into Alabama, Georgia and Mississippi for distances, similar distances from Meridian to points in Alabama and Georgia, are materially lower than the rates from Meridian. After we pass 100

miles on this scale, the rates from Meridian and the rates from Montgomery, Alabama, are both interstate rates; we have from Meridian to Atlanta for 319 miles the rates of $3.60, and from Atlanta to Meridian for the same distance, of course, a rate of $3.15, so without going into detail and stressing this comparison, Mr. Examiner, we want to repeat our statement that we think equalization should be effected, that these discriminations should not be permitted, that we do not see any reason for maintaining a higher rate from Alabama to Meridian that from Atlanta to Meridian, than from Meridian to Atlanta. And, by the same token, any lower rates from Montgomery and Atlanta towards Meridian than from Meridian in the opposite direction over the same rails. (Tes. 1078-1080.)

We have a large fertilizer factory in Meridian. They operate three factories, one in Meridian, one at Hattiesburg, and one at Shelbyville. And fertilizer is a commodity that is not necessarily limited to a restricted zone of distribution. The Meridian Fertilizer Factory can and does ship into Alabama, Georgia, Florida, and all over the Southeast, wherever they may place their product, and I do not know to what extent, whether they do to a very large extent, but it is not a commodity that is limited in its distribution.

As to the movement into Mississippi, I know that there has been a movement from Alabama—possibly Montgomery, Alabama, into plants surrounding Meridian, into our trade territory and that has been possible largely because of these discriminations in favor of the Montgomery shipper, the Alabama shipper. I don't know that our factory ships into Georgia now. I would not be in position to state definitely that they are covering those States to any extent, but I say it is possible to do it, just as it is possible for Atlanta or Montgomery or Birmingham or any fertilizer manufacturing point to ship into Mississippi, but we think that rates from Meridian into Alabama and Georgia should be on the same plane, same relative plane, as rates from fertilizer plants in Alabama and Georgia to Mississippi.

[fol. 745] Our plant is a manufacturing plant, it manufactures sulphuric acid. I understand that it is a complete fertilizer plant, quite a large size plant. The name of it is The Meridian Fertilizer Factory. (Tes. 1080 1.)

Cross-examination:

Concerning whether, in expressing the points of view which I have as to the importance and desirability of assuring that the transportation charges on fertilizer from Meridian to Alabama and other States be made on the same common rate level as prevails within those other States, and in behalf of the fertilizer company I appear for, my view holds equally good as to the matter of a parity of rates from other States to Mississippi and within the State of Mississippi: I refrained from discussing that, for the reason that I understood the Mississippi intrastate rates were not involved in this proceeding, but I am perfectly frank in saying that I could hardly adhere to the opinion that the rates should be equalized from Meridian, and not equalized into the State of Mississippi with other interstate shipping points. I think it is perfectly proper to concede that we must face that sooner or later, and I am perfectly willing to admit that we have to have rates established somewhat on the Shreveport principle.

On Exhibit 441, the rates shown there for the Alabama Great Southern, and the Southern, and also for the Mobile & Ohio, are the rates that were prescribed in the Meridian Case. My impression is that the fertilizer rates fixed in the original Meridian Case were based on the Alabama Great Southern scale. That is my impression. I am not positive that that was done, but there may have been some changes in the grading, possibly, after the I. & S. proceedings were instituted, they may have changed that scale.

I don't see any similarity in the two scales. The carriers' proposed scale, as I understand it, is the Third Royster Scale, and the first column shown on Exhibit 441 are the rates prescribed in the Meridian Case. They are higher in some instances and lower in others, that is true, but I don't see that there is anything in there to lead to the conclusion that the Royster Scale was adopted.

[fol. 746] Concerning whether I expressed myself in a case about a reduction when those rates were established, as satisfied with those rates, and advocate their establishment in the I. & S. case: I think that in my exceptions to the proposed report, that I did advocate the Royster Scale in the absence of any other scale that might have been submitted, because of the fact that a most comprehensive investigation

had been made in the Royster Case. Three hearings having been held, and I think was the only case involving fertilizer rates in the South where a comprehensive investigation had been made. I think when the Royster scale was put in by the Commission after three hearings, it was the most extensive hearings that the Commission had ever held in respect to fertilizer rates in Southern territory. But it is altogether possible that the rates now made in the South are made on or with regard to distance, and that if a distance scale were established, you would now have on the whole a lower level than if you made them without regard to distance. I say, when you adopt a distance scale of rates, you would have to perhaps adopt a lower level than you would if you were grouping the rates on a whole. Under the Royster scale they are made on a distance basis, but it was made under possibly different conditions than between Mississippi and other Southeastern States. (Tes. 1081-84.)

"Q. Yes, but you recall, do you not, that the opinion was expressed in the Meridian Case that perhaps the rates on fertilizer might be higher in your territory than in the Carolinas?

"A. I think there was some reference to the possible difference in operating conditions."

In other words, I think the Commission commented on the fact that there was no showing as to similarity of conditions as between the two territories.

As to why I say that the Commission prescribed rates in the Royster Case in a comprehensive investigation: I thought that after three hearings they might have been in a position to judge what the rates might be, better than they would have been had only one hearing been held, but I did not intimate that that was the proper measure of the [fol. 747] rates today that should be established, and don't mean to intimate that at all.

I have read the Commission's decision in the Blackshear Case. I don't recall what they said about the Royster Scale. I could not express an opinion as to whether there will be more movement of fertilizer in the Royster Case in one year than there will be under the Blackshear Scale in 15, in the territory involved, where the two scales apply.

I don't think what I said in the Meridian Case ought to be used against me in this case. (Tes. 1084-86.)

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EDWARD A. O'NEAL was thereupon recalled as a witness and, having been previously sworn, testified further as follows:

Redirect examination:

"By Mr. Cotterill:

"Q. Mr. O'Neal, you have been recalled at the suggestion of the Commissioner in reference to the matter of the minimum weight on fertilizer. During your absence from the hearing this morning, there was submitted in the record through me, data tending to justify and establish the propriety of a uniform minimum weight of 20 tons of fertilizer throughout the South. There seemed to arise some question as to the extent such proposal could be regarded as being warranted by my representation in this case. In response to a direct question, I stated that I understood that I was authorized by you in your capacity as representing the various farm organizations whose appearances I have entered, to say you did, in terms and in fact, concur in that proposal?

"A. Yes, sir."

As to whether the matter of the minimum had been submitted by the various farm bureaus to the individual farmers, and any effort been made to obtain an expression of opinion from the farmers generally: I will say this, that in Alabama that the farmers were very much delighted by it, except in a few localities. This is rather indirect, but I will give you the setting first. We thought that they [fol. 748] would probably object to this 20 tons, but I can show you in my files in the office a good many letters in which the farmers raise sand, because, for instance, we voted 20,000 tons of acid phosphate last year from the Southern Agricultural in Atlanta, and under the Interstate Commerce Commission, and the rules of the people over there at the factory, they only put 15 tons, while the farmers were raising sand because they did not fill those cars.

Now, in Alabama we had no trouble whatever except probably in one or two very remote counties where evidently it is hard to get up a carload. Now, that is the exception that proves the rule. As a rule, if you are a railroad man, of course this is another phase of it, I see one sitting over there that solicits business for delivery. As a rule, the farmer raises Sam Hill that he cannot get his fertilizers in time in the spring of the year. When he gets it, he wants it all probably, Mr. Commissioner, in a week, and the faster the railroad gets it out the better he likes it, and the fuller the car the better he likes it.

Our cooperatives in Alabama distribute it economically, due to the fact that there is no storage, and they take it from the car door, and I have seen as many as 25 or 30 wagons at a station, and if that carload of fertilizer don't arrive, or several cars, those farmers are on the long distance phone, or the wire, raising sand with the railroad. Now, they don't object. Now, in answering for the rest of the States, there is practically very little difference. But I have never brought the direct question to Mississippi as a part of this case, or Tennessee as a part of this case, and Louisiana, I have never brought that up to them, but I presuppose conditions are practically the same with farmers throughout this territory, cotton farmers.

For the purpose of my position in this proceeding, in the deliberations of the executives of those different State Association, there were adopted finally appropriate resolutions which were intended to authorize me to assume responsibility for various matters of policy under which I presumed I was authorized to take this position. And, so far as you know, I am authorized to do so, and do do so by virtue of those resolutions. If I have done anything wrong they have not informed me yet, but they gave me carte blanche, as you know, to answer for them, and I [fol. 749] think though that the psychology in Alabama is practically the same in the other States. I will take the responsibility for it anyway.

My testimony on yesterday was to the effect that a certain percentage of our farmers in Alabama got their fertilizer ordinarily through the cooperative association. The Association will order the fertilizer to be shipped to a certain point, and the individual farmer will come there and get his supply through the Association; the Association is or-

ganized on the same system as the Federal Government; each County has a local organization and in each county there is a community organization. That carload of fertilizer, when it comes, would hardly ever be consigned to the individual farmer or the Association unless instructed by that county unit. For instance, there are 67 counties in Alabama, we have 62 county Farm Bureaus. Now, the county unit does not purchase—it only collects money and does the distribution, handles the distribution, sending us the orders to the State office, and we then direct the man from whom we purchase to ship to this railroad station in that county, to the county Farm Bureau. In some instances it is an individual farmer. There are some large farmers that take several carloads; mostly, though, it is the small farmer that probably uses two or three tons, and they all join together, and come and get their fertilizer on a set date. I am not sufficiently familiar with the facts pertaining to the purchase of fertilizer by farmers other than those operating through the farm organizations, to say whether or not it is a common practice for them to combine when necessary to purchase a full carload, because usually that is arranged by their local fertilizer dealer. I know this, in some instances in the spring of the year, I have witnessed this; that you see on the side track in a little town like Clanton, up here on the L. & N. Railroad, and Chilton. I was over there last spring, and there was a fertilizer dealer there, and he just delivered this fertilizer right out of the car.

The railroad men and the fertilizer men are probably more familiar with that than I am. (Tes. 1086-91.)

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[fol. 750] Thomas J. Burke was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

My name is Thomas J. Burke, Commissioner, Charleston Traffic Bureau, Charleston, South Carolina. I am likewise a member of the Transportation Committee of the National Fertilizer Association. I am also connected with the Port Utilities Commission of Charleston; I am secretary of the Port Utilities Commission of Charleston. In that par-

ticular capacity I have been charged with considerable duty and familiarity respecting the matter of port charges, and charges at the various South Atlantic and Gulf Ports; I have been required to make myself familiar with the port practices, and the charges at the different ports.

From a shipper's point of view, I would say prior to January 10th, 1921, that the port charges were nominal.

"Q. As of that time, were the railroads themselves operating substantially all the port terminal facilities, with the exception of the Government terminals at New Orleans and Norfolk?

"A. There is another exception to that, that is at Jacksonville, there was the Municipal Terminals at that point."

"By Com. Eastman:

"Q. The Government Terminal at New Orleans, is the Municipal?

"A. No, the Army Base Terminals, of course, at the ports, and they have been taken over by either municipality or private corporation at that time.

"By Mr. Cotterill:

"Q. When I spoke of the Government Terminals at New Orleans, I meant the State Terminals, as I understand they are State Terminals.

"A. The Dock Board."

Effective as of January, 1921, the port terminal charges affecting imported fertilizer materials were very materially increased. There was no coincidental reduction in the lime-haul rates. There were later proceedings before the Com- [fol. 751] mission in which the measure of such increased charges was drawn in question; there was the hearing in I. C. C. Docket 12681, which was an investigation at the ports, Norfolk and South Atlantic and Gulf Ports, into the wharfage, storage and handling charges at the various ports.

In the Examiner's tentative report in Docket 12681 the handling charges on fertilizer material were ordered reduced 35 cents a ton in the I. & S. From 50 cents a ton to 35 cents a ton, and later, in the I. & S. proceedings which followed that, the Commission approved a reduction from

50 cents to 30 cents a ton, which is the charge now in effect. It was proposed by the carriers. Such port terminal charges as later modified by the Commission are still materially in excess of what they were prior to January 1, 1921. In the intervening time between January 1, 1921, and the present, the carriers relieved themselves in large measure of the operation of the various port terminals along the South Atlantic Coast; the carriers sold in July, 1922, the properties that they held in Charleston, South Carolina, to the Port Utilities Commission; later the Seaboard Air Line leased its dock at Wilmington to a private enterprise; and also leased its dock at Charleston to Mr. Fred Richards, of that city, who operates the fertilizer terminal at Charleston. The carriers still retain their terminals at Savannah. I would not say that Savannah alone is practically the only place on the Atlantic Seaboard where at this time the principal port terminal operations are operated by the carriers as private agencies. If we include Norfolk, the carriers have terminals at Norfolk and also terminals at Savannah. (Tes. 1091-94.)

There has been a change at Norfolk quite recently. And there is a private enterprise or corporation that is operating the Army Base Terminal which was leased from the Government by the Norfolk Municipality. By reason of the practical necessity of maintaining substantially the same port terminal charges at all the ports, it is a fact that the increased charges effective at Savannah, and at such other places as the carriers themselves perform the services, have influenced and controlled the measure of the charges by the port authorities, where the municipality or the State or private parties are operating the terminals; that is controlled by the charges at the private terminals. In con- [fol. 752] clusion on that whole subject, there has not been at any time a compensating decrease in the line-haul rates on these imported fertilizer materials corresponding to the advances in the terminal charges, when the carriers concluded upon the policy to discontinue the making of nominal port terminal charges; there has been no change in the import fertilizer material rates. The current line-haul rates reflect the same measure of charge as prevailed when the separate terminal charges were on a nominal basis. That is an additional factor which it is desired the Commission take into its account in the measurement of its new rates.

There has been no convenient opportunity until this time to bring forward the suggestion of a reconstruction of the line-haul rates in compensation for the change of policy which produced advanced port terminal charges; this is the first opportunity we have had to present that question.

It is understood that the line-haul rates will be subjected to the additional imposition of a port terminal charge. In other words, the measure of the line-haul rates here advocated is not to be understood as being shipside rates on those materials; the wharfage, storage and handling charges are to be in addition to the import rates on line-haul rates from the ports.

"Q. And, incidentally the Exhibit No. 443, which I understand you tender in evidence, will set forth that on a typical movement of imported material, the aggregate port terminal charge will be in the neighborhood of how much per ton?

"A. By the present day charge?

"Q. Yes.

"A. If it is handled direct from shipside to cars, it would be 50 cents a ton; that would include 20 cents wharfage and 30 cents handling, which would be in addition to the import rate."

If it is stored for 30 days or a fractional part, there would be a charge of $1.00; that would be a wharfage charge of 20 cents; 30 cents into storage, storage charge 20 cents, and 30 cents handling out of storage. That would be a transaction in the handling of fertilizer material at the port. It may be assumed that in the importation of these imported materials, the commodity begins with a load [fol. 753] of about a dollar, before the line-haul transaction begins. Subject to such revision of those port terminal charges downward or upward as may occur in the course of events, it is presumed that the separate addition of those charges will be continued. As applied to the movement of imported materials to a given interior destination from that port which is nearest to it by railroad mileage, it is the concerned view that the general mileage scale shall be charged; that is the way we want to make that import fertilizer rate. There is no suggestion here that the imported materials be treated as preferential commodities in the making of the interior domestic rail rates. The under-

lying key to the rate structure by the mileage scale applicable from the port which fixed the rate to a given destination. That is the rule that has been pretty generally followed in the making of import and export rates. The rates that we have at present in effect on the import fertilizer material, have been in effect for a number of years, and I presume very careful check of these figures with the rates were made from the nearest port, using some given figure, and the rates from the other ports were equalized with that rate. By reason of some of the recent changes in intrastate rates, the carriers have restricted the operation or application of those new intrastate rates in such way as to exclude them from application to imported material, where the shipment is strictly an import movement.

"Q. Where the identity of a shipment is known and regarded as a strictly import shipment, you say it has come about recently that the movement from a port to a point in the same State will not occur under the more recently made intrastate rates, but under the formerly prevailing rate level, generally speaking?

"A. And when a shipment of that kind would move on the formerly prevailing interstate rate, which is higher than the recently reduced intrastate rate."

If we take an imported movement of materials to points in the State of South Carolina from Charleston, such movements have not in fact so far been affected by the reduced rates of the South Carolina Commission. Subject to that present condition, which presumably is of a temporary character, I intend to adhere to the general statement that [fol. 754] the key of the rate structure on imported materials has been the domestic rate from the near port. It has been the practice of the carriers in their competition one with another, and as between ports, to seek to avoid the undue concentration or flow of imported materials through particular ports by a considerable measure of so-called "port equalization," and is still the practice on the movement of imported fertilizer materials to points in the Southeast and Mississippi Valley Territory. I have prepared with care 2 exhibits in which the effort has been made to set forth sufficiently of the rates as will leave a fairly accurate general impression of the character and extent of such port equalization as has prevailed and does

now prevail. I have prepared two exhibits—my Exhibits 444 and 445. In preparing these exhibits, I took Agent Speiden's Tariff I. C. C. 914, showing there the import rates published from the South Atlantic and Gulf Ports to destinations in the Southeast and Mississippi Valley. I have compared with those import fertilizer rates the scale rates, first of the National Fertilizer Association's Traffic Committee, and second the scale rates used by the carriers in proposed scale I. C. C. Docket 16295. (Tes. 1094-1100.)

(The statements were thereupon received in evidence and marked "Protestants' Exhibits Nos. 443 to 446, inclusive, Witness Burke.")

It is regarded that the principle of port equalization is consistent with both the carriers' and public interest, if extended and limited by reasonable bounds. Without attempting to particularize in any measure, I think it true that perhaps there is considerable need of a more careful determination of the measure of port equalization than would seem to be in effect today. There should be readjustment of these import fertilizer rates along proper lines. So far as concerns the interests here represented in this proceeding, it is not intended to go further than having indicated that the key of the import rates might well be the domestic rates for the short-haul movement, and beyond that, to leave authorization to the carriers to indulge in that measure of reasonable port equalization which would seem in their judgment in the first instance to be necessary and wise. But in saying that, it is thought to be given to the [fol. 755] determination of something resembling a more consistent and something like possibly a general rule if it can be done; that is recommended. I have in mind that perhaps there might be determined a given distance up to which the mileage scale shall be established from all the ports, but it is very hard to definitely determine what that line is. It might possibly be 200 miles, or 250 miles from a given port. Suffice it to say, and differing with it only in principle, the thought is there might be a point up to which the scale shall be adhered to from all the ports. Then as the total lengths of haul increased, the margin of narrowing spreads under what the scales would produce, shall become more accentuated.

I would say where the difference between two ports for distances from over 500 miles was not in excess of 50 miles,

for that distance you could have a parity of rates from those two ports.

"Q. If you would say up to 100 or 150 miles, the scales might be exactly the same from all ports, would it mean then that similarly, between the 500-mile limit, and the 100, or 150, or the 200-mile limit——

"A. Within those extremes the principle——

"Q. (Continuing:)—should be applied by fading out the difference?

"A. Within those extremes it would be taken care of by the fading differential."

In any event the problem in its initial stages is regarded as mainly one of carrier competition which is in the public interest, insofar as it tends to keep the several ports open for these uninterrupted movements from foreign countries, it is true that that is subject to carrier competition, and it is a matter that the carriers themselves will have to work out and submit to the shippers for consideration, the rates to apply on these imported fertilizer materials.

"By Commissioner Eastman:

"Q. Let me hear about your Exhibit 444. You show there distances from the various ports to certain destinations, the present rates, what they would be under the National Fertilizer's proposed scale, and what they would be [fol. 756] under the carriers' proposed scale. Now, in determination of what they would be under these two proposed scales, did you simply take the rate, or the distance?

"A. From the near port. Now, take as an example, Mr. Eastman, Atlanta, Georgia. At present you will note that the present import rate from Charleston, Savannah, Brunswick and Jacksonville is the same. Well, now, the key port there is Brunswick, Georgia, which is a distance of 275 miles. On the N. F. A. scale, the rate is $3.65, carriers' scale is $3.94. Now, that would set the import fertilizer material rate. The rate, from the other ports, according to our idea, should be equalized with that key port." (Tes. 1100-1104.)

I did not attempt on these exhibits to work out in such a manner port equalization, but merely to show what the

rates would be for the extra distance. For that particular distance. On my proposed plan of equalizing of the ports, I regard the South Atlantic Ports as one group and the Gulf Ports as another group. Well, there is a point where there is an equalization between the two groups. When you reach a point like Nashville, Tennessee, distance from the South Atlantic ports is comparable with the distances from the Gulf Ports, and there ought to be parity of the rates from that point to both groups of ports, but when you get over into the territory in Georgia, the advantage is towards the South Atlantic Ports, the same as in Alabama the advantage is towards the Gulf Ports.

There was no intention to leave Norfolk out of this exhibit. We think that Norfolk is entitled to import fertilizer material rates into Southern Territory properly equalized. These ports that are used here were taken out of tariffs of the carriers, publishing special import fertilizer rates. We would include Norfolk and Wilmington in the ports which we equalize. That was intended to be the single line distance to Atlanta, the Southern line distance.

"Q. All the others, where they may be shorter, joint line or short line?

"A. They are shown on the last page in the chart, which shows the different routes of those numbers."

[fol. 757] If the Commission were to prescribe different charges for single than for joint line hauls, it is to be understood that what is in mind is that the lowest rated port under the operation of the domestic rate level shall fix the key for the structure.

I heard the carriers' testimony in regard to port equalization, but I understood there was later to be testimony introduced showing just what that equalization was. So far as I understood what they had in mind, it is practically what I am proposing here.

This next exhibit of mine was prepared simply for convenience and consists of excerpts from previous decisions of the Commission dealing with the perplexing question of joint line differentials or arbitraries.

In the prescription of rate levels on the higher valued ranges of articles, such as would come under the operation of the class rates, when the rate level is relatively high,

there is a greater opportunity to average differences in transportation costs and so averaging them to ignore those differences the fixation of a uniform rate level throughout a territory, and in disregard of comparatively minor differences in transportation conditions. When you go to the other extreme and get down into the range of commodities where the important view is that the lower plane of rates should be established, that opportunity to disregard exceptional conditions is as great; there is an opportunity there to disregard those exceptional conditions. With more particular regard, however, to the matter of joint hauls of low grade commodities on which the so-called low rates are and should be applied, it is found that the measure of such so-called low rates is hardly sufficient to warrant the division of such rates between connecting carriers, particularly for the shorter length of haul, unless some additional charge be added. There is a necessity there, on a low grade commodity like fertilizer, or a joint haul. The principle would apply to any other low grade commodity. It arises more by necessity than any theoretical difference between the commodities. It is then the simple fact that the inevitable and necessary measure of the rates on the lower grades of commodities is and must be such as that in fairness to the connecting lines, it would be wise to impose a separate charge in recognition of joint hauls. If that were [fol. 758] not to be done, and if it were attempted to average the joint and single lines, and disregard difference between them, it would inevitably compel a higher rate level for that average than would be appropriate for that commodity; you have to have a higher rate level to take care of those joint haul movements, and sufficiently high to be very noticeably in contract with the two rate levels. It is understood that those principles are intended to support the theory of the assessment of a joint line charge higher than for single line; it is on those principles that we base our joint line scale in this case. Those same principles, however, tend to indicate that as the volume of the rate increases, with increasing lengths of haul, that practical necessity of making an arbitrary condition for joint hauls, at a certain distance, gradually fades out. As the volume of the rate ultimately reaches the point which it seems practicable to do so, the difference may be disregarded entirely. On account of that, there is embraced within the

proposal of the interests here a joint line fading system of so-called arbitraries; we have a system here, a fading differential for the joint line hauls. The measure of those several arbitraries has been carefully avoided in relation to the progression of the single line scale, so as to avoid anomolies. In particular reference to the matter of short lines, it is not desired by these interests to emphasize any particular conclusions of their own respecting the treatment of such carriers.

Recent decisions of the Commission incline us to the view that the Commission has gravitated towards some preconceived conclusions respecting the treatment of those carriers.

So far as concerns these interests, it is not the conclusion that as applied to that description of carriers, there are no peculiar circumstances surrounding the fertilizer, as distinguished from other commodities, and that whatever may be the trend of thought in the Commission as to its treatment of those carriers, those conclusions of the Commission are as applicable to the fertilizer as any other commodity; they would be applicable to fertilizer movement like they are applicable to other movements on those lines. It is our thought as to the entire field of inquiry, the interests we [fol. 759] are here representing are entirely content to abide the trend of thought in the Commission as a consequence of its more general study of that problem. (Tes. 1106-1110.)

Cross-examination:

"Mr. McGehee: That means, does it not, Mr. Cotterill, that as a matter of fact that so far as these short lines are concerned, that you are not opposed to a rather generous treatment of those lines; that is what you mean?

"Mr. Cotterill: That is the import of it, of course."

The shippers believe that these port charges, prior to January 10, 1921, were the nominal charges, and that the present port charges are too high for such services. These port terminal charges should be considered as having a bearing on the reasonable measure of fertilizer rates for the movement of imported fertilizer—not to the domestic movement.

"Q. Now, on whose authority did you rely for the statement that prior to 1921 the port terminal charges were merely nominal?

"A. I submitted the figures there; they appear to be nominal charges; they were in effect from 1901 to 1921, a period of 20 years."

I prepared that exhibit. It is true that it would appear from the caption of this exhibit reading as follows: "Charges shown below are not applicable at New Orleans"—that would imply that these figures shown on this table purport to represent the charges that were applicable at other South Atlantic and Gulf Ports; they are the charges that are applicable at the South Atlantic Ports, and at the Gulf Ports east of New Orleans. You know that there is a difference in the charges at New Orleans. I have shown those charges on the next page. Under the tariffs I have used in compiling this exhibit, in so far as the South Atlantic Ports and the Gulf Ports east of New Orleans are concerned, there is an apparent uniformity.

It is true that the very first item shown on my exhibit, column No. 1, which purports to show rates effective in 1901, carries with it a notation "not filed with the Inter-[fol. 760] state Commerce Commission." That exhibit was introduced by Mr. Glover in Docket 12681, and I had that checked up, and found that there were old tariffs in effect at that time that were not filed with the Commission. Mr. Glover was a witness for the Atlantic Coast Line Railroad in that case. Under Columns 2, 3 and 4 I cite individual tariffs of the Atlantic Coast Line Railroad, and you ask: Does it necessarily follow that those same terminal charges that were carried by the Atlantic Coast Line and may have been published by other carriers at other ports: I show those tariffs of the Atlantic Coast Line because my file was complete on it, and I did not take the tariffs of the Southern Railway and Central of Georgia, which I have in my offices, and check them against those, and found there were very few differences, very slight differences, practically the same. You take the tariff of the Southern Railway and the tariff of the Atlantic Coast Line, and they are the same. In saying that prior to 1921 I considered the charges nominal, I had particular reference to wharfage and handling charges; there has been modification in the storage

charges since then. Just prior to 1921 there were enormous accumulations of imported fertilizer materials which were left for long periods of time in the railroad warehouses, owing to the situation with which the fertilizer industry found itself confronted at that time. The charges on those—for that storage, were pretty low. It shows there was a charge of 10 cents a ton per month of 30 days. (Tes. 1110-1114.)

As to what extent I think that the fact that port terminal charges may have been small, or may not have been collected at all during the period that I am talking about simply grew out of the disruption of such charges by the different carriers for competitive reasons, and in an effort to equalize the different ports: There was prior to that publication in January 10, 1921, such practices at the South Atlantic and at the Gulf Ports, the carriers would absorb the entire storage charge for a year. So that as a matter of fact, growing out of this competitive situation, and these absorption practices, there was great variation in the actual charges that were made at different ports. I will say with regard to storage that frequently no charges were [fol. 761] made at all. I do not think it is true in regard to wharfage and handling. I think the carriers attempted to collect those charges.

The effort was made in the general investigation by the carriers to provide uniform charges at the South Atlantic and Gulf ports. Now, as to the measure of those charges, there was a large difference of opinion. Some of the shipping interests—I means the shippers' interests, held that the charges were too high, and attempted prior to that hearing to have those tariffs suspended, but they were not successful in that. I don't understand that the charges proposed by the carriers, and submitted by them at the hearing, were based upon the actual cost of performing the port terminal service, and fixed on what the carriers believed to be no more than a reasonable charge for the actual port terminal services, without any reference whatever to any line haul transaction. It is my recollection, at that hearing, that charges that were introduced by the carriers, were an average, rather than an actual charge; an average of the charges, based upon the average of costs at the different terminals, I heard the testimony. In General Order 28, the carriers did receive an increase on the port terminal

charges, but they did not receive any increase in port terminal charges in Ex Parte 74.

"Q. On the contrary, although in the general investigation, the Examiner of the Commission tentatively at least approved the scale of terminal charges proposed by the carriers on fertilizer and fertilizer materials, and were the only exceptions on which a lower level of charges was authorized or approved?

"A. There is one other exception, that was kerosene oil.

"Q. One other exception, kerosene oil?

"A. And fertilizer and fertilizer material, were the exceptions from the charges."

Since that time of that hearing, and that tentative report, the carriers have voluntarily further reduced the handling charge on fertilizer 30 cents; that was the carriers' reduction of that charge on handling from 50 cents to 30 cents. I am not familiar with the feature as to whether that reduction was made after the carriers had been confronted with threats from the fertilizer manufacturers that unless the [fol. 762] carriers' terminal charges were reduced, the fertilizer people would provide their own storage and handling at the ports.

The trend of thought in the South today is that either the State or the municipality should own its terminals at the various ports. I don't know of any place where the municipalities have leased any terminals from the carriers, and bought them outright. Wherever there has been leasing of terminals, such as Wilmington or Jacksonville, it has been by private individuals rather than the municipalities. Speaking of Charleston, I don't think we have urged the carriers to abandon any terminals, because before we went into the terminal business the carriers had already abandoned the terminals at Charleston. When the carriers voluntarily reduced the handling charge on fertilizer material, that was opposed by the public authorities, or municipal terminals; very actively opposed. (Tes. 114-118.)

I couldn't say that, in the general port charges investigation, I. C. C. Docket 12481 (12681), all the operators of private terminals at the South Atlantic ports, including Norfolk, took the position that the charges which the carriers were proposing were too low, and should be advanced;

I think that the opposition to the carriers' charges came from the American Warehousemen's Association rather than from private individuals, and it was their view that the charges proposed by the carriers were too low, that they ought to be higher.

"Q. Well, the operators, or the private facilities at the ports did take the position which I have previously stated, did they not?

"A. Not at all the ports. There was opposition at Norfolk and at Mobile, outside of that I don't know of any other private operators that took that position."

On my exhibit No. 443, item 10, I show the reduction there in the handling charge of from 50 to 30 cents per ton: I did not understand that the city of Norfolk, operating the Army Supply Base at that point, protested against that reduction on the ground that the actual labor cost of handling between shipside and storage, or between storage and car, was below actual cost of handling the properties. They appeared in that case and introduced testimony; they opposed that reduction.

[fol. 763] My point is that these terminals were largely operated by the carriers, and that such charges as they made are not of great importance, and for the most part they were dependent upon the line haul rates to cover not only the cost of the line-haul carriage, but also the terminal services as well. Later, especially after the terminals went into the hands of the municipalities or private interests, the terminal charges were established on higher levels. I am not endeavoring to prove that those charges are too high or too low, but simply that they are higher than the charge before, and that they were established on higher basis without any change in the line haul rate.

It is my understanding that the carriers would absorb the charge in order to get the business. It was a fight for the business, it was competitive conditions, and it made the import rate to the consumer or the man in the interior cheaper than they are under the present tariff.

Whatever compensation it was to the carrier for the combined port services and the line haul movement, was received out of the line haul rates. And, when later that policy was changed by reason of cost computations, the effort was made to establish a separate line of compensa-

tory port charges, there was no equivalent readjustment of line haul rates, and that is the essence of what I am attempting to establish here. That is the point I am trying to make, and that there should be a readjustment of the line haul rates from the ports along proper lines. We want that element of the added port charges taken in, when we readjust the import fertilizer rates. It is a fact that the advance in the port terminal charges and the publication of the uniform charges in Glenn's Tariff, which became the subject of this proceeding, were made prior to the time when these terminals were leased to public authorities. I think that the wharfage, terminal and other accessorial charges at the ports should be considered, and separated from the line haul; I think it should be separate and distinct from the line haul charge. In the operation of railroad terminals, it goes back to the old condition that it allows for the continuation of those absorptions, which we want to do away with.

"Q. Now, in the port equalization scheme awhile ago, you thought that 250 miles and under, that the mileage basis should apply to the various ports?

[fol. 764] "A. No, Mr. Cobb, I think you misunderstood me. I did not say any distance; it might be 150 miles, or 200 miles, or 250 miles. It is pretty hard to determine that; that would take a careful check of the rates and distances to arrive at that area within which you would apply your mileage scale."

I have not arrived at any line where you can draw the distinction between the mileage scale and the equalization basis. Our point in this case is that from the key port, or nearest port, the domestic rate will be applied, and from the other ports the rates will be equalized with that key port. (Tes. 1119-1122.)

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W. P. Sturtevant was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination.

"By Mr. Quirk:

"Q. I represent the American Cyanamid Company. We have two witnesses. In our testimony we will undertake to

show that cyanamid is a very important fertilizer material. That it is manufactured at Niagara Falls, the only place in fact that it is manufactured in North America. That its chief competition is in the Southeastern Territory, or rather that its chief source of consumption, and chief markets in the Southeastern Territory are involved in this proceeding. That it competes actively with European cyanamid, and that its haul in almost every instance is a long haul, and that the circumstances and conditions surrounding the manufacture, sale and transportation of cyanamid put it in a class by itself. It is of pecular characteristics that do not apply to any other fertilizer material.

"I will have Mr. Sturtevant as our first witness; he has already been sworn."

My name and address: W. P. Sturtevant, 20 East 35th street, New York City. I am employed by the American Cyanamid Company, as Assistant to the Vice President. [fol. 765] I have charge of handling the customs and duties matters and the freight rate matters as they affect all the products of the company. I am familiar with the issues involved in this proceeding. The American Cynamid Company is a corporation. It was incorporated in the State of Maine in 1907. Over 91 per cent of its capital stock is owned by citizens of the United States. Its cyanamid plant is located at Niagara Falls, Ontario. Cyanamid is what is called in the fertilizer trade an ammoniate. Every complete fertilizer is composed of three ingredients; potash, acid phosphate and ammonia. Cyanamid which contains about 26 per cent ammonia, furnishes part of the ammonia content of the fertilizer manufacturer's complete product. Cyanamid is a grayish powder and is made by pulverizing, hydrating and oiling lime nitrogen. It is sold on the basis of its ammonia content. It has no use other than as a fertilizer material. The American Cyanamid Company located its cyanamid plant at Niagara Falls, Ontario, to obtain the advantage of very cheap hydroelectric power.

Our company produced during the year ending March 31, 1925, about 65,000 tons of cyanamid. During the preceding 12 months about 55,000 tons. Our production has been steadily increasing. All of our total production of cyanamid is used as a fertilizer material.

Last year's production was shipped: About 36,000 tons to S. E. Territory; 24,000 tons to Trunk Line Territory; 2,600 tons to C. F. A. Territory and the rest to S. W. Territory, Western Territory and Canada.

The cyanamid process was discovered about 25 years ago by two German chemists by the names of Frank and Caro in Berlin. The world rights to this process were placed in the hands of an Italian corporation with headquarters at Rome, Italy. In 1906 the American Cyanamid Company secured from this Italian corporation the rights to the cyanamid process for North America. In 1908 the Cyanamid company started building its plant at Niagara Falls, and produced its first material in 1910. At that time this material had never been produced in North America. The cyanamid company spent several years and large amounts of money introducing the use of cyanamid into the fertilizer industry in the United States. It was necessary to employ highly trained technical men, and a large staff of service [fol. 766] men to demonstrate the use of this material. For a long time there was a strong antipathy on the part of the fertilizer mixers toward this material. In the early days the product was not nearly so suitable mechanically for use in fertilizer plants as it is today, and a great deal of labor trouble was caused by its high lime content. The first year in which the cyanamid company sold any large amount of this material was 1916, in which year 41,000 tons were sold. During 1917 and 1918, the United States Government commanded the cyanamid company to use all its plant facilities in the interest of the Government and not a pound of cyanamid was sold during those two years.

Cyanamid contains peculiar properties which make it valuable as a fertilizer material. It has a high content of ammonia which is a very valuable fertilizer ingredient. In addition, cyanamid is a fine conditioner of fertilizer mixtures as its use makes the fertilizer dry, friable and easy to handle and to apply to the soil. This latter property of cyanamid is very important, as in many cases the base used by the fertilizer manufacturer is very wet and soggy. The nitrogen in cyanamid is changed in the soil into organic forms such as urea, which nourish the plant for longer periods than some other ammoniates.

The tonnage of cyanamid produced does not reflect its real importance to the fertilizer industry, for the reason that only about 60 pounds of cyanamid can be used, under normal conditions, in a ton of complete fertilizer. The reason for this is the high lime content of cyanamid. Thus, it will readily be seen that the 65,000 tons of cyanamid used in fertilizer mixtures during the past year were used in the production of a total amount of over two and a half million tons of fertilizer.

Cyanamid is not produced by any other company in North America. Cyanamid is sold directly to the fertilizer manufacturer. In recent years there has been a diversion of natural organic ammonia from the field of fertilizers to other uses. Formerly tankage and dried blood were largely used in the manufacture of fertilizers on account of their high ammonia content. However, these materials are now more valuable for stock and poultry foods and therefore have disappeared to a large extent from the fertilizer field. Our cyanamid competes with nitrate of soda, [fol. 767] sulphate of ammonia and cyanamid produced in Europe. As to which of these products I regard as our chief and most active competitor: Sometimes one product and sometimes another. The fertilizer manufacturer ordinarily uses sulphate of ammonia and nitrate of soda as well as cyanamid, because it is not possible to substitute one of these products entirely for the others. To a certain extent such substitution can be made, however, so the price we can obtain for our cyanamid is governed largely by the price of these other materials. If one of them is unusually low in price, that is apt to be our principal competitor. Our cyanamid, to have the largest market, must be priced lower than sulphate of ammonia or nitrate of soda. On the other hand, the only material which, if used by the fertilizer manufacturer, necessarily replaces and excludes our cyanamid is European cyanamid. Every pound of this last mentioned material used in America means the loss of one pound of business for us. (Tes. 1183-28.)

The Federal and State Governments have taken a special interest in the development and use of cyanamid as a fertilizer material. It is recognized as a standard fertilizer material by the U. S. Department of Agriculture and by the Departments of Agriculture of many States. Such bodies

have conducted many tests with cyanamid. The Fixed Nitrogen Research Laboratory of the United States Government has published several documents concerning the value of cyanamid. The use of cyanamid tends to simplify the manufacture and decrease the cost of fertilizer. Cyanamid is the cheapest form of organic ammonia which the fertilizer manufacturer uses today. We have prepared an exhibit which shows the average price per unit of ammonia of nitrate of soda, sulphate of ammonia, and cyanamid for the years 1910 to 1924 and six months of 1925. This table shows that the f. o. b. price of cyanamid from Niagara Falls has been uniformly lower than the f. o. b. prices of the other ammoniates. In my judgment, the use of cyanamid has enabled the fertilizer manufacturer to reduce his selling price to the farmer. It should also be borne in mind that cyanamid is a fine conditioner of fertilizer, and its use enables the manufacturer to cure his fertilizer in two or three days.

[fol. 768] I know of advantages enjoyed by the European producer of cyanamid not enjoyed by the American Cyanamid Company: Several European governments built large cyanamid plants during the war to supply nitrogen for explosives. After the war these plants were subsidized by these governments in the matter of power, and other things. This fact, coupled with the low labor rates in Europe and the depreciation of the currency of most of those countries, bring the cost of producing this European cyanamid to a very low figure. In addition to this, the ocean freight rate from Europe to our South Atlantic Ports is from $3.00 to $3.50 per ton, which is less than the railroad freight rate on our material from our factory to Virginia City Gateways and the Ohio River Gateways. We must not only pay the rail rate to these gateways, but must also pay the rail rate from these gateways to the fertilizer manufacturing plants in the Southeast. Take Savannah for an example; the European producer can deliver his cyanamid at Savannah at an ocean freight cost of about $3.50, while our rail freight cost to Savannah is $3.89.

We will offer Exhibit No. 447.

(The statement was thereupon received in evidence and marked "Protestants' Exhibit No. 447, Witness Sturtevant.")

As to why, in the face of the advantages enjoyed by the European manufacturer of cyanamid, it is that we have been able to compete in the Southeast: We have adopted every possible means of reducing our costs and have spent, within the last two years, nearly one and a half million dollars at our Niagara Falls plant to reduce production costs. During this same period we have cut our selling price about 25 per cent, but a substantial part of this cut in price has come, not, out of savings in cost, but out of reductions in our margin of profit on that part of our business which consists in the production and sale of cyanamid fertilizer material. During the last five years we have cut our selling price for this material over 50 per cent, and its price today is 40 per cent below the price of nitrate of soda and 24 per cent below the price of sulphate of ammonia. [fol. 769] It is important that the American fertilizer industry have the source of supply of cyanamid maintained by our company. It would be very unfortunate if the American fertilizer manufacturer were forced to depend entirely upon the European producers for his supply of cyanamid. These European cyanamid plants are operated by hydroelectric power which fluctuates greatly with the amount of rainfall and snowfall. The American Cyanamid Company has an absolutely dependable power supply from Niagara Falls which does not fluctuate, and it has always been able to supply all the cyanamid required by American fertilizer manufacturers. Its ability to continue to do so will be promoted by its securing reasonable freight rates.

I heard the testimony yesterday about the effect on a car of the odor from a certain number of fertilizer materials. The odor of cyanamid is not a contaminated odor. If you have cyanamid and put it in a small bottle, with a neck an inch across, and cork it for some time, there is a slight odor, due principally to the petroleum that is used to oil cyanimid. Cyanimid, unless it is oiled slightly, is a very dusty material, and to reduce this dustiness, we hydrate it slightly, and oil it with about 5 per cent of petroleum, and this oil does give out a slight odor. (Tes. 1128-32.)

Cyanimid is shipped in 200-pound burlap bags, and if you had loose a bag of cyanimid on the table here, nobody would notice the odor from it.

The population of Niagara Falls, Ontario, is about 20,000. The American Cyanimid plant is located in the northern part of the city, right on the city line. It is a fairly populous district. There has never been any complaint lodged against the company because of odors by the people of Niagara Falls, nor by the Government.

The American Cyanimid Company has never made a claim against the railroads for damage to its commodity, or for losses other than the actual loss of the sack. The railroads to my knowledge have never made a complaint against the American Cyanimid Company that the cars used in the transportation of Cyanimid had any bad effect on the car.

[fol. 770] My purpose was simply to make a general statement for our company and our factory, and our material, which Mr. Sweidler, who will go into the rate situation. (Tes. 1128-1133.)

(Witness excused.)

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Oscar Sweidler was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

My name is Oscar Sweidler; I reside in Jamaica, Long Island, and I am in charge of the American Cyanimid Company Freight Traffic Bureau. I have been employed by the American Cyanimid Company for about six years. I am located in New York. In my experience in the traffic work, I have had occasion to deal with the rate matters. I am familiar with the issues in this case. I have studied the case from the standpoint of these issues, and have prepared exhibits with respect to the interest of the American Cyanimid Company. I am familiar with the testimony that has been introduced thus far. The movement of cyanimid from Niagara Falls is a fairly constant movement. I want at this time to submit some exhibits.

(The statements were thereupon received in evidence and marked "Protestants' Exhibits Nos. 448 to 460, inclusive, Witness Sweidler.")

"Mr. Quirk: No; I will undertake to explain our position.

"Mr. McGehee: I think it will help us.

"Mr. Quirk: The American Cyanimid Company, as our record will show, has now proportional rates from Niagara Falls to Ohio River Gateways and Virginia City Gateways, which are lower than the prevailing rates on fertilizer materials. They also have through rates to Gulf Ports. The issues in this case embrace the rates on fertilizer and fertilizer material within the Southeastern Territory. What the American Cyanimid Company seeks in this case, and we hope the railroads will look upon the thing as something to their own interest as well as to ours, is a proper-
[fol. 771] tional rate from the gateways to the consuming points in the Southeast.

"Were it not for some of the jurisdictional questions, this company might object or complain, and seek joint rates from Niagara Falls to these points in the Southeast, and as our case develops, you will see that it has its own peculiar characteristics, and that what it ought to have is some rates on these gateways that will constitute for that purpose through rates, and at the hearing in Atlanta Commissioner Eastman asked Mr. Drescher while on the stand, how the railroads would look upon a proposition of establishing proportional rates, and Mr. Drescher said they would be glad to consider it, that it perhaps seemed to them, that perhaps that was the thing to do. Now, I assume at sometime before the hearing is finished or concluded, the railroads will have something to say about it, but that is our position, and we think that question is directly in issue under the order." (Tes. 1133-36.)

This exhibit, 448, shows that in the period mentioned we ship at a fairly constant rate during the entire year; that is, from April 1st, 1924, to March 31st, 1925, we shipped a total of 62,431 tons of cyanimid. The statement also shows that during the period mentioned we shipped at a fairly constant rate during the entire year; the average was over 5,000 tons per month.

The figures for the period covering this exhibit are typical of previous years; they are typical figures as to the movement. I have prepared an exhibit which shows how

cyanimid produced by the American Cyanimid Company has been distributed throughout the country.

I submit Exhibit 449 showing the dsitribution of cyanimid for the period between April 1, 1924, and March 31, 1925, showing that 35,376 tons were shipped into the Southeast; 24,427 tons were shipped into Trunk Line Territory, and 2,628 tons were shipped into C. F. A. Territory. This exhibit shows that more than 56 per cent of our cyanimid tonnage went to States in the Southeast.

The carriers have testified that the movement of fertilizer in the Southeast is seasonal, which tends to increase the cost of transportation. There is nothing seasonal about [fol. 772] the movement of cyanimid produced by the American Cyanimid Company. As shown by my Exhibit 448, the movement of our cyanimid is constant throughout the year. This constancy in the movement of cyanimid tends to give the carriers loadings for cars to the fertilizer mixing plants that might not otherwise exist. I should say that during the time that fertilizer is being shipped heavily from Southern fertilizer factories, the movement of cyanimid as a raw material provides the carriers with an empty car supply, which they would otherwise have to supply. If there is anything in the statement made by the respondents that the seasonal movement of fertilizer from mixing plants in the South increases the cost of handling, then we submit that the circumstances surrounding the movement of cyanimid, a raw material, into these plants, indicates that this element of cost is absent in respect to the movement of cyanimid.

There is no reason why there should be the same rates on fertilizer as on cyanimid. Fertilizer in the Southeast has been shown to move for distances of 100 miles or less. Cyanimid moves greater distances. It is a raw material used in the manufacture of fertilizer, and the method of manufacturing such fertilizer by the use of cyanimid is, in my opinion, similar to the practice of manufacturing in transit, under which many raw materials are given freight rates much lower than rates on the finished products.

It is generally well recognized by both the Commission and the railroads that the rates on raw material should be lower than on the finished products.

There are rates on fertilizer materials in North Carolina that are 10 per cent lower than fertilizer rates. There are rates from the Virginia Cities and from North Carolina to Southeast inland points and to South Atlantic Ports that are lower than the fertilizer rates. There are rates on fertilizer materials in the States of Georgia and Florida that are lower than the fertilizer rates. There are scattering fertilizer material rates throughout the South lower than the fertilizer rates. In Trunk Line Territory there are some fertilizer material rates that are lower than the fertilizer rates. This is so as to cyanimid in Trunk Line Territory.

[fol. 773] As to how the average loading of cyanimid compares with the average loading of fertilizer: It loads heavier—to show this I submit Exhibit 450, showing the tonnage of cyanimid shipped into the Southeastern States for the period April 1, 1924, to March 31, 1925; also showing the number of cars shipped, and the average weight per car. In North Carolina we shipped on the average 27.33 tons of cyanimid per car. The lowest average loading for any State is that for Alabama, which was 24.93 tons per car. The average for the entire Southeast is 25.88 tons per car. Statements were made during the hearing in Atlanta that the average loading for fertilizer in the Southeast was about 21 tons per car. However, this average figure of 21 tons per car includes the fertilizer material tonnage. In several States fertilizer material moves at higher carload minimum than fertilizer. This tends to exaggerate the carrier's average figure of 21 tons for average loading of fertilizer. (Tes. 1136-1140.)

The car would not have to be cleaned in ordinary merchandise movement, if it had contained cyanimid. Cyanimid is non-odorous, shipped in burlap bags, and its chemical action is entirely neutral. It would not affect the car nor general merchandise loaded in a car that contained cyanimid. Ordinarily, I should say that cyanimid cars would not have to be cleaned.

I have prepared a statement that shows the volume of this European cyanimid importation. I submit Exhibit 451 showing the importation of European Cyanimid from the period June 1, 1924, to March 31, 1925. It will be noted that this cyanimid was shipped to the United States from seven different European countries. The total tonnage

shipped to the United States during this period was 17,734 tons of cyanimid. By comparison with Exhibit 449 it will be noted that European cyanimid sales in the Southeast were 50 per cent of our sales in the Southeast, and adding the two figures, i. e., the total figure for the American Cyanimid Company's shipments and the total figure for the European shipments, it will be noted that the tonnage they have been able to sell in the Southeast represents a curtailment of our sales in the Southeast by a substantial tonnage.

The cyanimid which we ship to the Southeast moves from Niagara Falls, Ontario, on proportional rates to the Vir-
[fol. 774] ginia Cities or Ohio River Gateways. To these proportional rates are added the local rates from the gateways to the Southeastern destinations.

The proportional rate on cyanimid from Niagara Falls, Ontario, to the Virginia Gateways is $5.40 per ton.

European Cyanimid has been shipped to the Southern ports at a rate of about $3.50 per ton. The usual charge for delivery from steamers to the large plants located in the South Atlantic Ports is only 70 cents per ton.

The total cost of laying down European cyanimid at any of these large port factories is only about $4.20 per ton.

Several of the large European cyanimid plants are located at seaports, such as at Odda in Norway, and Sebenico in Dalmatia. There is no interior freight to pay to get this European cyanimid on board vessels. The European cyanimid manufacturer has a freight difference in his favor of $1.20 per ton as compared with our freight cost to reach only the gateways to the Southeast.

The high local rates from the gateways to the Southeast is added on top of his already large freight advantage.

We wish to point out that many of the large fertilizer plants in the Southeast are located in the South Atlantic Ports, such as Wilmington, Charleston, Savannah and Jacksonville.

We can't ship cheaper by ship to the North Atlantic Ports, by water; since the War the steamer lines have raised their rates to such an extent that combinations are out of the question, besides, we have to pack our material especially for water transportation at an extra cost, and that is taken into consideration in the figure of water costs,

and water transportation.

These port factories use about 50 per cent of the entire Southeastern cyanimid tonnage. The European cyanimid producer does not have to be concerned to a large extent with interior American freight rates. On most of his sales the United States railways do not receive any haul whatever.

Cyanimid shipped by us sustains a complete rail haul from Niagara Falls, Ontario. The United States carriers secure revenue from every ton of American cyanimid shipped into the Southeast by this Company. It has been testified by the Southern carriers in this proceeding that the average freight haul on fertilizer material in the [fol. 775] Southeast is about 100 miles. This is based upon actual movement of these materials from a typical port, Wilmington, North Carolina, and is fully shown on Mr. Menzies' Exhibit No. 11.

At best, the European cyanimid movement to interior Southeast would not exceed an average of about 100 miles, and the freight rate for this distance would be an exceedingly small item when compared with the rates and distances which cyanimid produced at Niagara Falls, Ontario, sustain, such as rail hauls from 700 to 1,200 miles and rates averaging $10.00 per ton.

As shown by Mr. Sturtevant, other ammoniates may be used with our cyanimid, but every ton of foreign cyanimid used by fertilizer manufacturers located in the Southeast means one ton less of our cyanimid that we can sell. The characteristics of our cyanimid and the circumstances and conditions surrounding its movement into the Southeast are peculiar to it, and, in our judgment, warrant the establishment of proportion rates lower than the existing rates on cyanimid from the Ohio River and Virginia City gateways to points in the Southeast.

I have prepared a statement showing the rates on cyanimid from Niagara Falls, Ontario, to the Ohio River Crossings and the Virginia City gateways, and to various Northeastern points.

I submit Exhibit 452, showing rates on cyanimid from Niagara Falls, Ontario, to Boston; Philadelphia, Carteret, New Jersey; Baltimore and Norfolk.

In this statement we show the 6th class rate, which is the classification basis for cyanimid, in Official Classific-

tion Territory, and which also moves most of the fertilizer in Official Classification Territory.

However, comparisons between these 6th class rates and the cyanimid rates show that, with the exception of Norfolk, the cyanimid rates are slightly over 70 per cent of the 6th class rates which ordinarily move fertilizer in the North.

I say 6th class rates ordinarily move fertilizer; I am referring to complete fertilizer and not materials; not the materials in Trunk Lines. Well, the materials in C. F. A. Territory move under 6th class rate, but in Trunk Line Territory there are some materials—some points of origin, [fol. 776] some destinations where no material rates exist, there are also some that have material rates.

As a rule, 6th class rates in C. F. A. is a lower basis than Trunk Line.

Well, New York here is represented by the actual fertilizer manufacturing point, Carteret, New Jersey.

"Q. I mean, have you got rates from Niagara Falls to Cartaret, New Jersey?

"A. Carteret is representative as New York, you can use Carteret as New York figures, if you want to."

However, comparison between these 6th class rates and the cyanimid rates shows that, with the exception of Norfolk, the cyanimid rates are slightly over 70 per cent of the 6th class rates which ordinarily move fertilizer in the North. They also show the proportional rate on cyanimid from Niagara Falls to Norfolk, which, it will be noted, is 62.7 per cent of the 6th class rate.

Comparison of these rates with the Royster Scale rates for the distances involved shows that in many cases the Royster Scale is higher. The carriers have made the statement that fertilizer material rates in the South were generally lower than fertilizer rates in the North. I wish to call attention to Mr. Menzies' Exhibit No. 20, in which he compares the fertilizer rates in the Trunk Lines Territory with the Royster Scale rates. (Tes. 1142-46.)

"By Com. Eastman:

"Q. Haven't you made a mistake in that exhibit, in the heading, 'Percentage of commodity rate to proportional

rate?' Should not that be 'Percentage of proportional rate to commodity rate?' Just as in the next one?

"A. In the case of which? No, that is commodity rates of the 6th class rates.

"Q. No, the next one, percentage of commodity rates to the proportional rates—83.7 per cent. Should not that read just as the next column does, 'Percentage of proportional rates to commodity rates?'

"A. Oh, yes, that is just turned around there. I just want to show there that even our proportional rate is 83 per cent of our general cyanimid rate level in Trunk Line Territory."

[fol. 777] Between many shipping points in Trunk Line Territory, and many destinations, there are special rates on fertilizer materials. There are a great many commodity rates on fertilizer.

I have prepared an exhibit which is in the nature of a summary of the rates shown by Witness Menzies in his Exhibits 20, 21, 22 and 23; and I now submit Exhibit 453, of two pages. It will be noted that the Royster Scale rates are 80 per cent of the Northern fertilizer rates. In some instances they are 75 per cent. But the average, based on all these exhibits, which are quite comprehensive of the rates on fertilizer in Trunk Line Territory, shows that the ratio between fertilizer rates in Trunk Line Territory and the Royster Scale is 80 per cent. In other words, the Royster Scale is 80 per cent of trunk line rates.

"By Mr. Quirk:

"Q. You mean 6th class rates?

"A. Well, not 6th class of the general level of fertilizer rates in Trunk Line Territory."

I have prepared an exhibit in which the rates on cyanimid from Niagara Falls are compared with the 6th class rates in Trunk Line Territory for the purpose of showing the ratio of cyanimid rates to the 6th class; and I submit Exhibit 454. That exhibit shows that the cyanimid rates from Niagara Falls to Trunk Line Territory are 75.5 per cent of the 6th class rate.

This may be compared with Witness Menzies' exhibits, which show that the ratio of the Royster scale to Trunk line fertilizer rates is about 80 per cent.

The carriers have stated that the fertilizer rates in the Southeast are substantially lower than the fertilizer rates in Trunk Line Territory. The traffic density in Trunk Line Territory as to all commodities is greater than the traffic density in the Southeast. However, if we confine ourselves to fertilizer and fertilizer materials, the traffic density in respect to those commodities is greater in the Southeast than it is in Trunk Line Territory. It is shown that the movement of cyanimid in the Trunk Line Territory is substantially the same as the movement of our cyanimid into Southeastern Territory.

[fol. 778] In Trunk Line Territory fertilizer traffic generally moves at the 6th class rate. In the Southeast, the classification rate for fertilizer is the "fertilizer rate, of 6th class in the absence of fertilizer rates." In the Southeast commodity rates are considered as a classification basis for fertilizer. In Trunk Line Territory our cyanimid moves at 69½ per cent of the fertilizer rates.

In our Exhibit No. 452 we show a proportional rate on cyanimid to Virginia City Gateways represented by Norfolk, 62.7 per cent of the 6th class rate. This is a proportional rate established to enable our cyanimid to move from Niagara Falls into the Southeast. These proportional rates were voluntarily established by the Trunk Line carriers as they recognized the necessity for such rates. All the reasons which have induced the trunk lines to establish proportional rates on cyanimid are present in the Southeast. There is no reason that we know of why the basis that now prevails in Trunk Line Territory should not be established in the Southeast.

I have prepared an exhibit which will reflect the effect of the Royster Scale on the movement of cyanamid to the Southeast. I submit Exhibit 455. This is a six-page exhibit showing the revenue produced under the present rates, the Royster Scale, and the Alabama Scale for the cyanamid tonnage moving into the Southeast between April 1, 1924, and March 31, 1925. These exhibits are self-explanatory.

In North Carolina, under the Royster Scale, our weighted average freight rate will be increased from 8.49

to 8.74, a ton; whereas, under the Alabama Scale there will be a very slight reduction.

In Tennessee the average rate will be increased under both the Royster and Alabama Scales.

In Mississippi the tonnage is very slight and the effect of the rate change will be inconsequential.

In Florida under the Royster Scale the present rate would be increased 9.50 to 10.58 a ton, and the Alabama Scale average rate would be $10.00 per ton.

In South Carolina our present average rate is 9.98. The Royster Scale would produce an average rate of 10.04; and the Alabama Scale would produce a rate of 9.52.

In connection with this exhibit, the rates given and commented upon are from Niagara Falls, Ontario, and where [fol. 779] rates to certain States are named, they are rates from Niagara Falls, Ontario, on cyanamid to those States as named.

In Alabama there is an increase from the present average rate of $9.36 per ton to $10.96 per ton on the Royster scale, and $10.21 on the Alabama Scale.

In the State of Georgia, where we ship 11,099 tons, the average present rate is $9.74 per ton. Under the Royster Scale this rate would be increased by $1.05 per ton to $10.79 per ton; and under the Alabama Scale, the average rate would be $10.06 per ton. (Tes. 1146-1150.)

The purpose of exhibits 454 and 455 is to show that neither the Royster Scale, nor the Alabama scale are adaptable to the movement of cyanamid. It shows that the average rate on cyanamid under either of these scales would be increased. We have already demonstrated that the rates on cyanamid cannot stand an increase and ought to be reduced.

It is true that the Royster and Alabama Scales would bring about reductions on cyanamid to some points in the Southeast. We call attention to the fact that to the largest points in the South our rates are increased under both of these scales in almost every instance.

Broadly stated, this exhibit supports our general position that cyanamid has peculiar characteristics and special circumstances surrounding its movement and competition, which make it necessary that it have rates which are fair and reasonable as applied to that commodity. I have an

exhibit to show what would be the scale then prescribed for the average rate on cyanamid. That is 456.

I now submit Exhibit 456, summarizing Exhibit No. 455. The weighted average rates for all of the Southeastern States under the present rates is $9.92 a ton; under the Royster Scale $10.13 a ton; under the Alabama Scale $9.52 per ton.

That is all the way from Niagara Falls.

"Q. You are just taking the distance from Niagara Falls; do you know what the rate would be under the Royster Scale?

"A. Well, not the distance, the combination rate. The rate, through the gateway, and local rate from the gateways.

[fol. 780] "Q. Based on the Royster scale?

"A. Based on the present rate, the Royster scale and the Alabama Scale."

This bears out our contention that as a general average under either the Alabama or Royster scales our cyanamid rates would be increased. Should the Royster Scale be adopted, it will entirely nullify, insofar as cyanamid is concerned, the 10 per cent reduction required by the Interstate Commerce Commission in 1922. In other words, our increase under the Royster Scale would mean about 10 per cent. As to whether these rates from the gateways at present are special commodity rates applying on cyanamid only: I will explain that this way. In North Carolina to some fertilizer plants there are special rates for carload minima of 50,000 pounds. That does not apply all over the State of North Carolina, but only to some fertilizer factories. Now, generally in the Southeast, cyanamid moves on fertilizer rates. The rates from the Ohio River Gateways, for example, are merely the present local fertilizer rates. The same thing from the Virginia Cities, the present local fertilizer rates.

I have prepared an exhibit which shows the effect of the Royster Scale on the charges applicable to cyanamid moving from Niagara Falls to Southeastern points during the period from Aprl 1, 1924, to March 31, 1925. I submit my Exhibit 457, showing the cyanamid tonnage shipped to the Southeastern States during the period mentioned, showing

the present freight cost under the rates from Niagara Falls to the Southeast, and the freight cost under the Royster Scale and under the Alabama Scale.

It will be noted that in every State in the Southeast the Royster scale will cause increased freight cost on the cyanamid. This increase would aggregate $26,424.95 per year.

Now, I want you to note that. Mr. Sturtevant made a statement that we were spending a million and a half dollars for improvements in our plant. Now, the railroads wish to assess us $26,000.00 or more to move our cyanamid. (Tes. 1151-53.)

The Alabama Scale will cause increases in every State in the Southeast except that in North Carolina there will be an insignificant reduction. The net increase under the Alabama Scale will be $7,228.01.

[fol. 781] I have prepared an exhibit which shows the weighted average distances with respect to the movement of cyanamid.

I now submit Exhibit 458, showing cyanamid tonnage shipped into the Southeastern States in the period April 1, 1924, to March 31, 1925, showing the weighted average distances that cyanamid moves from the Virginia City Gateways.

This statement also shows the weighted average rate from the gateways to points of consumption in each of the Southeastern States, and the weighted average car mile earnings under these rates. This is shown both as to the Royster scale and the present rates.

The weighted average distances from the Virginia City gateways to the five Southeastern States is 414 miles. In every State in the Southeast the average haul of cyanamid is greater than the average haul for fertilizer materials. This is borne out by the exhibit introduced by Witness Menzies, and numbered 11.

In the State of North Carolina, in which the hauls are the shortest of any of the Southeastern States on cyanamid, the weighted average haul is 197 miles, almost twice the haul on fertilizer and fertilizer material moving between points in the Southeast.

In the State of Georgia, where we ship almost half of our Southeastern cyanamid tonnage, the weighted average haul from the Virginia Gateways is 492 miles, almost five

times the distance of the average fertilizer and fertilizer material movement in the Southeast.

It has been stated by a witness for the carriers, Mr. O'Connell, that on the Central of Georgia Railway System the average haul for fertilizer would not exceed 100 miles, and that the average revenue on fertilizer for the whole of the Central of Georgia Railway System is $1.71 per ton. He also gave the average rate of all traffic as $2.18 per ton, and the average haul 183 miles approximately. Exhibit 458 shows the present weighted average rate on cyanamid from the Virginia City Gateways to the Southeast to be $4.54 per ton. The average haul on cyanamid from the Virginia City Gateways is 492 miles, which is more than four times the average haul on fertilizer on the Central of Georgia. Notwithstanding this, the earn-
[fol. 782] ings per ton on cyanamid are approximately as large as the earnings per ton on the fertilizer movement for the average haul of 100 miles.

The present rates on cyanamid to the Southeast are contrary to the general principles of rate making, which recognize that as distances increase the earnings per ton should decrease.

As heretofore stated, the movement of cyanamid has peculiar characteristics. It is in a class by itself, and as to rates should be treated in the South as it is now treated from Niagara Falls, Ontario, to the gateways, by applying to it proportional rates to the Southeast from the Gateways.

I don't think that a rate scale built around an average haul of 100 miles is applicable to cyanamid—a long-haul commodity. It is obvious that a rate scale which is built around an average movement of fertilizer and fertilizer materials of less than 100 miles is not a fair scale to be applied to a commodity which has an average movement of 414 miles.

Mr. O'Connell testified that of all traffic handled by the Central of Georgia, the average distance was 183 miles and the average rate $2.18 per ton.

If the Royster scale be applied to the average distance given by Mr. O'Connell, it would produce a rate of $3.27 per ton.

As the average rate on all traffic is $2.18 per ton, the rate produced by the Royster Scale would be $1.09 per ton over the average rate. (Tes. 1153-56.)

Although the carriers have repeatedly assured the Commission during the trial of this case that the fertilizer traffic in the South moves under lower rates than any other traffic, Mr. O'Connell's testimony tends to prove that if the scale approved by the railroads is adopted that it would not be a fact. On the contrary, the scale proposed by the respondents is substantially above the average rate for all traffic.

I have prepared an exhibit that shows the revenue under the present rates and average loading on cyanamid from Virginia City Gateways to the Southeast, compared with the revenue under the Royster Scale and the 15-ton minimum proposed by respondents on both fertilizer and fertilizer materials. I submit Exhibit 459.

[fol. 783] This exhibit is intended to show the car earnings that would result from the Royster Scale application to the cyanamid movement with a 15-ton minimum as compared with the Royster scale at the average loading for cyanamid at the present time.

We also compare the Royster Scale earnings with the earnings under the present rates from the Virginia Cities.

The earnings under the Royster Scale with a 15-ton minimum are about half what the earnings would be under the present average load of cyanamid on basis of the Royster scale.

The earnings under the Royster Scale with a 15-ton minimum are substantially below the earnings on cyanamid under the average loading at the current rates.

All of this tends to show that the existing rates on cyanamid from the Virginia Cities and Ohio River Gateways to the Southeast are too high.

I have prepared an exhibit which shows the rates on various commodities to the Virginia Gateways to South Atlantic Ports with the earnings thereto as compared with the rates and earnings on cyanamid, and submit Exhibit 460. This statement shows that there are many commodities moving from the Virginia Cities at the present time, either on local rates, or on proportional rates from the Virginia Cities, to the South Atlantic Ports that either

have lower rates than cyanamid rates, or yield the carriers lower revenue per car than cyanamid rates.

As to whether there is anything else, in my opinion, that would justify different treatment of fertilizer materials, or cyanamid, rates, on traffic moving through the Ohio or Virginia Gateways to the Southeast.

Cyanamid moves to the Virginia gateways on proportional rates from Niagara Falls, Ontario. These proportional rates are identical to all Virginia Cities. When a strict mileage scale is used from the gateways to the Southeast, the result would be to divert and concentrate most of the tonnage to the most strategically located gateway in respect of mileage. This would also concentrate in the hands of a few of the Southern carriers most of the tonnage. It would operate to the disadvantage of the carriers operating from other less fortunately located gateways having longer mileages to most of Southeastern Territory. This is true with respect to Lynchburg, Virginia, [fol. 784] on the Southern Railway and Norfolk & Western Railway. These two carriers would be unduly favored to the disadvantage of such gateways as Richmond and Norfolk and to the detriment of the Seaboard Air Line, Atlantic Coast Line, Norfolk & Southern Railway and others.

In my estimation, this condition could be overcome by grouping all of the Virginia gateways and by using the mileage from the nearest gateway to each Southeastern point. This would only apply to traffic originating north of the Virginia Gateways, using these gateways to make combination rates to the southeast. For local traffic from the gateways to the Southeast actual mileage could apply. That the situation would have to be taken care of in this way is already recognized by some of the Southern carriers.

The inference from my statements just made is plain that the treatment of rates for fertilizer materials and cyanamid coming from the North and moving into the Southeast will have to be different than for the local movement of fertilizer and fertilizer material between points in the Southeast, and which moves for distances averaging only 100 miles.

I heard Mr. Sturtevant's testimony about claims.

Cyanamid gives the railroads a double haul. As we have already explained, the movement of cyanamid into the

fertilizer plants and out again in the form of complete fertilizer, is merely a transit arrangement; the cyanamid does not lose its identity as cyanamid. It therefore provides the carriers with inbound and outbound revenue on every pound of cyanamid sold by the American Cyanamid Company. At least half of the rate materials used in the manufacture of cyanamid originate in the United States and give the railroads a haul on these materials, such as coal, coke, bagging, machinery, which constitutes two-thirds of the rate materials used in making cyanamid. (Tes. 1156-60.)

I think that for the cyanamid movement, considering all points that have been raised here, such as the average haul; the average loading; the average earning per car; the fact that there is little or no risk; there have been no claims; constancy of movement; the fact that it helps fertilizer car supplies when needed in the South; the fact that rail carriers obtain the total haul; that it must compete [fol. 785] with European cyanamic, all, in my judgment, suggest that we should have a rate of 62 per cent of the present fertilizer rates in the Southeast, or whatever scale the Commission makes effective.

The conditions surrounding the movement of fertilizer and material are not substantially different in Trunk Line Territory than conditions in the Southeast. This is particularly true as to our cyanamid. The testimony indicates that fertilizer rates in the Southeast are, generally speaking, on a lower basis than the fertilizer rates in Trunk Line Territory. Our testimony shows that the rates on cyanamid in Trunk Line Territory are substantially lower than the rates on fertilizer. The rates on Cyanamid in Trunk Line Territory are lower than the proposed Royster scale. Since fertilizer rates in the Southeast are lower, generally speaking, than fertilizer rates in Trunk Line Territory, and since cyanamid rates are lower in Trunk Line Territory than the fertilizer rates, it follows that the rates on cyanamid from the Gateways to Southeastern points should be lower than the fertilizer rates. We feel that cyanamid rates in the Southeast should be about 62 per cent of the fertilizer rates. The proportional rates on cyanamid from Niagara Falls to Virginia City Gateways are 62 per cent of the fertilizer rate. (Tes. 1160-61.)

Cross-examination:

Assuming that it is true, and it is true that the Southern carriers in this proceeding are proposing to establish the fertilizer rates on cyanamid imported through the South Atlantic Ports and the Gulf Ports, charging the full Royster Scale, as to what traffic or transportation reasons I can think of that would justify the Southeastern carriers in establishing rates from Ohio River Crossings or Virginia Cities made 62 per cent of that scale on business from Niagara Falls: I think we show that the American Cyanamid Company's cyanamid sustains a rail haul of 1,200 miles in the United States.

[fol. 786] "Q. Viewing this thing from the standpoint of the Southeastern carriers, import cyanamid also sustained a transportation charge, and this is a question purely of Southeastern transportation, viewed from the standpoint of Southeastern carriers, what justification would they have for charging a rate 62½ per cent higher from Virginia cities and Ohio River crossings for corresponding distances as they charge from South Atlantic Ports and Gulf Ports?

"A. Now, let me tell you, you may have a proportional rate from junction points or gateways on long distance traffic that might be different from the local rate in that section.

"Q. But these are both used with the proportional or divisional rates, whatever you want to call them. The circumstances are both the same, so far as Southeastern lines are concerned.

"A. Well, they are the same only to the extent that they are the same commodity. The average hauls are different."

We have not shown in this case that the average hauls on import would be longer than the domestic. We have not shown that the average haul of the fertilizer material is 100 miles. Cyanamid was considered as a material, we supposed. We thought that when we were making these statements, that you were talking of cyanamid as one of the fertilizer materials.

I have nothing to say about the import rates, import cyanamid rates. I have no views to express about the

transportation or traffic conditions which would justify rates from the Ohio River crossings and Virginia cities to the Southeast 62 per cent of the rates applicable from South Atlantic Ports or Gulf Ports to interior Southeast, except that cyanamid moves from longer distances, and probably on higher carload minimum, and carloading.

I do not know how the import cyanamid cars have been loading, but in the absence of any such testimony, why, I presume it is on the carload minimum. I don't suppose it would help our company at all if the cyanamid rate proposition were considered alone, and the imported rate made the same proportional of the fertilizer rate as the proportional rates that I suggest, namely 62 per cent, or some per [fol. 787] cent of the fertilizer rate, as a general proposition, but since our rates from the competitive gateways are not so high, and the rates from the ports are low, on a percentage basis we would get more reduction, would we not? (Tes. 1161-64.)

If they reduced the rate on imported cyanamid, considering that my testimony shows that some of the largest points of consumption are at the ports, and that cyanamid from the ports inland is probably a small thing, and, giving us a per cent basis, and even if they gave it to the European men, which is not shown to be necessary at all, nobody is here asking for it, it would help us, because 50 per cent of our business is at the South Atlantic Ports. There is no rail haul sustained on the imported stuff, you know. The principal grounds or demands for reduction are not patriotic motives. Competitive motives.

The value of a ton of our product is about $43.00 a ton.

"Q. You have a situation here, you spoke about it being a raw material. As a usual thing, raw material is worth less than the finished product, is it not?

"A. Well, sometimes it is."

In our case the raw material is not move valuable than the ton of fertilizer in all cases. I am not prepared to say if it is more valuable than a 10-2-2 or a 10-3-3, or 8-4-4. I think Mr. Davis' exhibits show what the average prices of fertilizer are, and the comparison can be made with that exhibit.

"Q. Now, if a scale either submitted by the carriers or submitted by the fertilizer interests was submitted by these parties for the purpose of applying that scale, both on the materials and on fertilizer, if you were to have a lower rate on materials, then you ought to have a higher rate on fertilizer than perhaps for either, should not you?

"A. Well, that depends upon how you look at it. We are asking for proportional rates to carry a long-haul traffic here. I think it is on a different basis."

We are not satisfied with your proportional rates down to the Ohio River. I think our rates to Virginia cities are fairly reasonable.

[fol. 788] Exhibit 457 shows that, in South Carolina, out of 8,160 tons, 5,846 moved to Charleston. Our rate there to Charleston is today materially lower than our rates to any intermediate point. We have had a heavy tonnage to Savannah, Georgia, too, and that is materially lower than our rate to intermediate points like Atlanta.

Well, I don't think I am prepared to talk about a selling point of cyanamid, but I might say this; that the sale of cyanamid is not curtailing the sale of sulphate of ammonia or other ammoniates in the Southeast. I don't think if you were to educate the Southern fertilizer manufacturers as we are endeavoring to do, this cyanamid will displace these other materials, for the reason that you can only use about 60 pounds of cyanamid per ton of mixture. Well, it might displace something else. It might. I don't know what the physical conditions are. I really could not testify on that point.

If you assume that a given consumer would buy sulphate of ammonia or nitrate of soda, that instead of that, they would buy cyanamid, of course I should think to that extent it would displace it. I imagine, I think, that the Southeast consumed about half a million tons of sulphate of ammonia. I think about a million tons of nitrate of soda is imported from Chile, and my exhibit shows about 38,000 tons of cyanamid. (Tes. 1164-68.)

Mr. Sturtevant has shown that cyanamid competes in a sense with sulphate of ammonia and nitrate of soda.

"Q. Now, can you say how much tonnage of sulphate of ammonia a ton ot cyanamid would displace?

"A. Well, I imagine 60 pounds in the ton, that is the way it is used."

It would not displace two tons. Probably displace an equal quantity, because the analysis of sulphate and cyanamid is about the same. Well, it might displace a little more than nitrate of soda. In other words, if nitrate of soda is used, there would be a greater quantity used in the manufacture of a given quantity of fertilizer than if cyanamid was used; 60 pounds to the ton more.

Our price of $43.00 a ton is f. o. b. Niagara Falls. As to how I arrive at 62 per cent of the fertilizer rates as the [fol. 789] proper basis for these proportional rates: You will see from Exhibit No. 452 that cyanamid moves from Niagara Falls, Ontario, to the Virginia Gateways at rates 62.7 per cent of the fertilizer rate.

We have taken north of the Virginia Cities as your basis; proportional rates on Virginia Cities.

"Q. Should cyanamid be accorded any different treatment than other commodities that originate north of the Ohio River? In other words, should the Commission prescribe this rate of .62 per cent on cyanamid, should not it also be made applicable on other fertilizer materials, such as tankage, for instance?

"A. Well, if those commodities are involved in the same competitive situations that we are, probably so. We have a big competition with European cyanamid that none of those other commodities have."

As to whether our greatest competition in the Southeast is with cyanamid, or with the sulphate of ammonia and nitrate of soda: Mr. Sturtevant testified on that point. I believe he showed that our competition is with nitrate of soda and sulphate, as well as European cyanamid.

Mr. Sturtevant:

You cannot say any one of these is a competitor except to this degree. A mixer can use sulphate of ammonia, and cyanamid; he can use nitrate of soda and cyanamid, but for every pound of foreign cyanamid he uses, that takes a

pound away from us. In placing our commodity down here we come in competition with a large measure, with sulphate of ammonia and nitrate of soda, and the extent that we are able to have them use our commodity, it would displace a certain amount of those other two. (Tes. 1168-1172.)

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R. G. Cobb was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

(Statement): Mr. Examiner, I won-t consume very much time; my exhibits are mainly going to show the local situa-[fol. 790] tion out of Mobile on import and domestic fertilizer rates.

So far as the measure of the rates in this case is concerned, I of course adopt the scale of the National Fertilizer Association, which, as I understand is the same scale as the Alabama State that is now under attack.

I was in the Alabama State Case, and when those rates were submitted I was an advocate of what we proposed, and which the Commission of Alabama practically allowed.

(Certain statements were thereupon received in evidence, and marked "Protestants' Exhibits Nos. 461 to 466, inclusive, Witness Cobb.")

Exhibits Nos. 461, 462, 463, and 464 may be filed at one time, as they all cover the same principles.

They simply show the rates from Mobile to the lines that lead from Mobile.

The L. & N. Railroad, Southern Railway, the M. & O. Railroad and the G. M. & N. Railroad. I have compared with the present rates and proposed rates of the carriers, and also have shown the Alabama mileage rates which are practically the same as the National Fertilizer Scale here submitted by the National Fertilizer people.

In most cases, the proposed rates are increases in the present rates.

The proposed rates are also increases in most cases over the Alabama mileage rates.

I have shown on Exhibit 463 not only the Alabama mileage rates, but the present Mississippi rates on Mobile & Ohio Railroad.

I am sure that rate is correct; $2.30 for 5 miles to Whistler, Alabama. That is the Meridian Case rate, I understand. Whistler is 4 or 5 miles out of Mobile, and in the switching limits of Mobile, Alabama.

I have shown some Mississippi mileage comparisons on the V. M. & N. Railroad, Exhibit No. 464.

Exhibit No. 465 shows present imported fertilizer rates and the fertilizer material rates from Mobile, compared with the present Alabama State rates, and also the proposed rates of the carriers. As stated before, the proposed rates of the carriers are somewhat higher than the present rates, and they are also higher than the Alabama mileage rates for similar distances.

[fol. 791] You understand these exhibits are given to show my local situation, there have been several general situations around here, but the local situation, and in order to show exactly what effect it has on one of the ports.

Exhibit No. 466 shows the imported fertilizer rates from Mobile to Mississippi Valley points. The proposed rates shown in Column 2 of the rates were obtained from the exhibit furnished me by Mr. Chadwick, of the Mobile & Ohio Railroad. I wish to call your attention to several of the inconsistencies of that exhibit that he has not yet filed, but which I understand the carriers propose to operate if they can.

Mobile to Hattiesburg, Mississippi, on the first page of that exhibit. You will notice that the carriers' scale from Mobile to Hattiesburg produces $2.59. However, they propose that specific rate on import fertilizer from Mobile to Hattiesburg, $2.70 a ton. You will find that condition also exists at Okenna, Masterton, and several other points in the Mississippi Valley.

I assume, or to me that maladjustment is caused by the G. M. & N. Railroad being the leading line, and that line in the past has always claimed it was a weak line. At this time, however, the G. M. & N. Railroad is not in the condition it was in the past, and as this is a competitive stuff that goes into territory that the other lines compete with, the G. M. & N. Railroad should not exceed by any means the carriers' proposed scale.

I will now touch, a couple of minutes, on this port relationship. Port relationship has been considered a matter of some study with me for the last two or three years. To begin with, the grouping of the ports is, I would imagine, and should be something according to the distance one port is to the other. For instance, I will take Mobile & Pensacola. In the past, Mobile and Pensacola, to points to the north via the L. & N. Railroad, have, as a rule, been the same, and I understand that it is the L. & N.'s policy in the future to carry that adjustment to points on and north of Montgomery and Selma, but when we come to points south of Montgomery and Selma, where the distance from Pensacola to those points such as Greenville, Georgiana and Evergreen, the L. & N. Railroad in some cases has published lower rates on fertilizer imported from Pensacola [fol. 792] than they do from Mobile. The difference in distance is only 16 miles, and in the past I have always considered Mobile on the main line of the Louisville & Nashville Railroad, and Pensacola as on a branch line. Certainly that is the condition so far as passenger traffic is concerned.

To sum it up, I think that distance should be somewhat of a guide in making the import and export rates on fertilizer. Distance also should be a dominant factor, but not the predominant factor. The carriers in the past, and we have always understood that these export, domestic and coastwise rates were nothing more or less than proportional rates—in other words, divisions of through rates on traffic going abroad and received from abroad, and there should be some sort of flexibility in the equalization of the ports, especially when the mileages are only about 16 miles different.

Commissioner Eastman, in Docket 13494, at page 657, has somewhat remarked about the distance rates—distance class rates. He says, that:

"Flexibility should be permitted in the application of the scale. There is nothing sacred about distance rates. * * *

"The distance rates prescribed are maximum rates. In addition to the minor deviations from a rigid application of the scale which are mentioned above, the carriers may publish lower rates than the scale provides, to the extent that this can be done without creating undue preference

and prejudice, or by common consent of the shippers and communities affected. To avoid undue preference and prejudice in such cases, the carriers must be able to show that the reduced rates will not benefit one community which they serve to the injury of another so served; and to show this, inasmuch as all communities are producers and consumers of class-rate traffic, it must at least be established that competitive conditions require the reduced rate at the favored point or points and that similar conditions do not exist at the point or points which are not so favored."

Now, as to the wharfage, terminal, and other accessorial charges at the ports. I think that such charges should be separated from the line-haul rates. This is in accordance [fol. 793] with the practice that is now going on, as testified by Witness Burke yesterday, in which the municipalities and others than the railroads are taking over the port terminal facilities. In the past and present, you might be a high port, and the terminal charges published at these ports might not cover the cost of handling between ship and cars, but they are published and of course if the charges are higher than the actual cost of transfer, why, that is taken out of the line-haul rate. In other words, the terminal charge in some cases can milk the line-haul, which they have done in the past and are now doing. (Tes. 1173-1178.)

Cross-examination:

In my Exhibit No. 466, I indicate that in respect to import rates, the carriers in some instances perhaps propose rates higher than the present scale.

"Q. Do you understand that the carriers contemplate doing that in any case?

"A. From the exhibits furnished me by Mr. Chadwick, that is what they worked out. Hattiesburg, Mississippi, for instance."

In my Exhibit No. 466, I show the proposed rate to Hattiesburg from Mobile to be $2.70. On Exhibit 465 I show the rate from Mobile to Hattiesburg as proposed, to be $2.82. The explanation of that difference is: I don't know; have you the carriers' scale here? May I check that, and file an exhibit to recheck it? I did not make the figures

myself, and what I am trying to compare is the mileage proposed by the carriers against the specific rates proposed by the Mobile & Ohio Railroad in the exhibit furnished by Mr. Chadwick of the Mobile & — Railroad. There might be some minor deviations there.

Referring to Exhibit 465. If we were to substitute the Alabama Commission's scale for the present rates from Mobile, you would produce in practically every instance an increase over the present rates, and some of them materially. So far as I know the present rates that I show on Exhibit 465 from Mobile were voluntarily established by the carriers. They have been in effect for some time. And as to the increases, let us take Birmingham, Alabama, the [fol. 794] present rate, $2.93. The Alabama rates now, which the carriers are attempting to use—some of the carriers—on sulphur is $3.65, the Alabama mileage scale. They are attempting in that case there to apply the mileage scale on coastwise business, not on import business.

In so far as these wharfage charges and handling charges, etc., terminal charges at the ports on import and export traffic, I agree with the carriers that any question as to those charges is not involved in this case. All I am trying to do is to get to the method of separation. I don't think that the wharfage and terminal or accessorial charges at the ports should be applied at shipside. Let us let the municipalities get their subject before somebody later on. (Tes. 1179-1181.)

(Witness excused.)

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Edgar Moulton was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

(Statement:) My name is Edgar Moulton; I am assistant general manager, New Orleans Joint Traffic Bureau, at New Orleans, which position I have held for about 7 years, and prior to that was in railroad service for approximately 15 years.

As I understand the testimony that has been introduced with respect to import rates, it goes to the application of the proposed scale on domestic traffic. It is our thought

that while it is true that on domestic fertilizer the movement is at relatively short hauls, the reverse is true on imported fertilizer materials. Those commodities moving not only at short hauls, but also at long, as well.

We do not believe that a mileage scale should be made to apply on the long-haul on import fertilizer materials. The scale might be used as a guide to determine what the level of those rates should be, but it should be stated that it is entirely flexible and can be departed from at will by the carrier, in order to meet the necessary competition at the long haul.

[fol. 795] Now, with respect to the equalization of ports. It has always been our thought that the carriers should have the right to equalize ports on export, import, as well as coastwise traffic. I recognize it is a very difficult matter to draw any special line where that equalization should begin, but a great deal of thought to the subject brings me to the conclusion that at a point 200 miles or more from any given port, which is generally grouped with another port, that the carriers should have the right to equalize those two ports, if in its thought that equalization is right.

"By Mr. Cobb:

"Q. Mr. Moulton, you know that from New Orleans to Birmingham on fertilizer material at the present time imported, the rate is $2.93 from New Orleans and Gulf Ports and Mobile. Would you consider it proper to group those ports on that distance, 354 miles from New Orleans?

"A. On import traffic yes, Mr. Cobb.

"Q. 269 miles from Mobile?

"A. On import traffic, if the carriers serving New Orleans and Birmingham, as well as the other ports, think it is proper to group those ports on Birmingham traffic, I believe they should be allowed to do so.

"Q. Why an exception on fertilizer, when on the iron and steel articles there has been for some time a differential, Mobile under New Orleans?

"A. The differential is there, but it has never been fixed by this Commission, and the views that I express with regard to fertilizer apply equally well to iron and steel, and all other commodities. Does that satisfy you?

"Mr. Cobb: All right."

I mean the points should be 200 miles distance from the nearest port. It would be more than 200 miles from the other. I do not want to be understood to say that the carriers should be forced to equalize, it should be left to the discretion of the carriers. I recognize that the equalization of the ports carries with it many conditions in respect not only to the commodity, but to the movement of the commodity, and where equalization might be proper in some instance, it might not be so in another instance, de- [fol. 796] pending entirely upon the commodity. If the point was 100 miles from Mobile, and 250 miles from New Orleans, I would not expect to be equalized there. (Tes. 1181-84.)

(Witness excused.)

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L. F. Orr was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

(Statement:) I want to offer at this time my Exhibits 467 to 471, inclusive.

(The statements were thereupon received in evidence, and marked "Protestants' Exhibits Nos. 467 to 471, inclusive, Witness Orr.")

Exhibit 467 is an itemized statement of the inter and intrastate movement of fertilizer for the year 1924 to Kentucky points. This statement is compiled from records furnished by fertilizer companies doing business in Kentucky but does not include movement by water or movement to points on the C. & O. It will be noted we have shown origin, destination, short line mileage, number of cars involved, tonnage, present rate and rate proposed by carriers, and have extended present and proposed rates and compiled an earning test, detail of which is shown in an exhibit to follow.

Exhibit 468 is taken from a statement of the Bureau of Agricultural Economics of the U. S. Department of Agriculture. In this statement they say that if a wage paid hired hands is allowed for labor of the average operator, his own capital invested in agriculture earned no returns

during 1920-21 and 1921-22 and only 1.4 per cent during 1923-24. In July Crops and Market Supplement, Volume 2, Supplement 7, they show a reward of only 3.6 per cent for operators net capital investment and management.

I might say there too that the reason I did not include that in the exhibit was because it was only issued this last month.

They say on page 236, "The improvement from agricultural production during past year from 11.3 billion to 12.1 [fol. 797] billion dollars is due almost wholly to the higher grain and meat animal prices, particularly wheat and hogs." These are commodities the South imports in appreciable quantities and to such an extent this increase will not be reflected in the Southern farmers earnings column, but instead it will no doubt mean an increased operating cost to him. In this report they further state, "These returns are a considerable improvement over 1921-23, but they are still inadequate when compared with annual wages paid to hired labor. In 1924-25 the average reward for the labor of a hired hand was $569.00, while that remaining for a farm operator and his family would be $649.00. They show further that in addition to the inadequate returns on capital and labor, the value of all property used in agriculture has been deflated in 5 years from 79.6 billion to 59.4 billion, a loss of over 25 per cent. The farmers own capital invested has been deflated from 48.1 billion to 33.4 billion, a net loss of over 30 per cent. These are farmers all over the United States. Not the farmers in Kentucky. I will speak of the farmers in Kentucky a little later, Mr. Commissioner.

It will be noted from page 2 of this exhibit that return on total capital after deflation was only 3.1 per cent and if you were to use capital investment as of 1920 you would have an earning slightly in excess of 2 per cent.

Exhibit 469 shows a price index of farm product values by groups of commodities. It will be noted all group-average only 30 per cent increase over pre-war. Page 220, Volume 2, Supplement 7, Crops and Markets for July, 1925, shows index for May, 1925, as 46 per cent above pre-war compared with index of 61 per cent above pre-war on non-agricultural commodities, and shows agricultural group to bear a 90 per cent relation as compared with a 100 per cent pre-war base for both groups. The increase from 130 to 146, June, 1924, over May, 1925, is almost wholly

due to meats and grains of which the South is an importer as has previously been explained.

Exhibit 470 is a survey of 15,103 farms for the year 1924. I have been engaged for a considerable extent during the past ten years making a study of farming conditions and know from my personal experience that farms used in these tables are far above the average, particularly as [fol. 798] to Kentucky farms, and I know their gross cash income will not average exceeding $500.00 per year. In one county in which I made a survey and am entirely familiar, I found their gross cash income would not exceed $450.00 per year. It will be borne in mind this farmer has to pay taxes, insurance, keep his house, fences, outbuildings, etc. in repair, buy school books, clothing for his family, replace implements and buy the provisions he does not produce. In addition, the physical condition of the average farm is not nearly so good as in 1920, because the farmer has not had the money to even keep up his running repairs. The farmers in the South are the main victims of soil depletion for the last century, and it has only been during the last few years they have learned their soils may be reclaimed profitably, and they have not yet put into practice the work of reclamation to the extent they have even checked erosion and depletion. A question usually raised by the average farmer when I explain that the Department of Agriculture has proven that soils may be reclaimed profitably is "Where am I to get the money for the purchase of plant foods?"

It is a problem for the farmer to find enough above expenses to buy fertilizer. It will be noted from the tables in this exhibit that the South Atlantic States had a decrease in earnings for the year 1924 compared with 1923, and the South Central States only earned $169.00 more, or a total of $1,059.00.

I am not unmindful that these carriers are entitled to a fair return and do not believe a scale should be established that will not yield cost of service plus a fair return. It seems apparent that the condition of the fertilizer industry is such that any increase in rates will be passed on to the farmers, in my judgment a scale lower than the present average would yield not only a fair return, but as well, will encourage the use of plant foods, increase production, and thereby increase the purchasing power of the farmer, which will reflect in the earnings of the carriers in the increased

tonnage hauled, made possible by this increased purchasing power. The Illinois Central and many other Southern carriers have realized this, and now voluntarily maintain a scale much lower than the Royster Scale. I might say there, that all of those rates in Kentucky were voluntarily established rates by the carriers.

[fol. 799] Exhibit 471 is a comparison of earnings on fertilizer under present and proposed rates compared with the average of all freight for all Southern lines, year 1923. The present average rate on fertilizer per ton in Kentucky is 43 per cent higher than the general average of all freight for Southern lines, and the increase proposed by carriers would yield 16 per cent more than present rates. The average weighted haul on fertilizer is only 186.96 miles; while the average haul — all freight is 214.24. The average car-mile earnings, all freight, is approximately 30 per cent less than present fertilizer car-mile earnings.

In the carriers' testimony at Atlanta it was proposed that Ohio River points be equalized as before. In their previous equalization of these crossings they have not only equalized the crossings, but as well they have equalized the crossings with inland points 100 miles or more farther South on movements from and to Southern Territory. Taking Lexington as typical, Lexington takes Cincinnati rates to and from the South, but when Lexington even under the principles laid down in 13494 has to pay a proportional over Cincinnati on shipments destined to Official Territory. It appears to us that if Lexington and other inland points are to be put at their mileage disadvantage on shipments moving over Cincinnati, the Cincinnati and other river crossings deserve like treatment on shipments from and to the South." (Tes. 1184-1190.).

"By Com. Eastman:

"Q. Are you not mistaken about Lexington being differential over Cincinnati to all Official Territory?

"A. All of C. F. A. Territory, Mr. Commissioner.

"Q. Trunk Line Territory?

"A. In Trunk Line Territory it takes Louisville basis, but it does not take Louisville basis going south, though."

There is a disparity there, they give Cincinnati rating going South, and 87 per cent to points in Trunk Line Ter-

ritory, and from points in Trunk Line Territory they give Lexington a 100 per cent basis, the same as Louisville. Now, under the principles of 13494, Lexington should have a lower rate than Cincinnati, going south. I do not believe [fol. 800] there is any more reason for equalizing this situation than there would be reason to equalize New Orleans with Jackson, Mississippi. Carriers also testified at Atlanta there were no fertilizer plants at Lexington. In my opinion, there will never be, or any other kind of manufacturing plants at any inland points so long as this situation continued.

When I spoke of the condition of the Kentucky farmer, that included the farmer who raises the Burley tobacco. Of course there is a little section around Lexington there, consisting of some probably 10 or 15 counties in which it will be probably noted by this traffic test, they did not even use any fertilizer. They produce their own, all that rich Blue Grass section, but right around in that same section is a bunch of so-called pauper counties it will be noticed that the bulk of the fertilizer movement to Kentucky moves to those so-called pauper counties. They have tried to, but they have never restricted the production; they have never got enough percentage of the farmers into the Association. (Tes. 1190-91.)

(Witness excused.)

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F. W. Gist was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

Name, F. W. Gist; residence, Auburn, Alabama. I am an agricultural statistician.

At present I am generally employed by the Federal Government and the Alabama Extension Service, and am also ex officio the State Statistician of the Alabama Board of Agriculture. The basic duties are to estimate farm production. Relatively with that part of our duties for the State Department of Agriculture and the Extension Service, to interpret those statistics after they are gathered. I have been engaged in the work of agricultural statistician

a fraction over 19 years. I have been employed in this work in and for the State of Alabama, since 1915, about 10 years and a half. Immediately prior to that I was employed in this same work, for the remainder of the 19-year [fol. 801] period. In other words, I have been continuously employed in this work for some 19 or 20 years.

Prior to my work in this business in Alabama, the field of my work was: Beginning with 1906, first in Arkansas and Louisiana, next in Oklahoma and part of Texas, then taking over briefly the State of Colorado, from there to Kentucky and Tennessee. Incidentally, during the time brief periods of employment in Mississippi and Georgia. During all of this time I have been employed either by the United States Government or by some of the several States; usually in cooperation with the States. My chief employment is under the United States Department of Agriculture. The Alabama Extension Service is a service maintained jointly by the United States Department of Agriculture and by the Agricultural College. I refer to the Alabama Polytechnic Institute at the Agricultural College. It is a State institution, and the leading agricultural and mechanical college, or University, in Alabama.

The general nature of the work of the Alabama Experiment station is to make experiments in all parts of the State to determine the best methods of farming, the various crops to grow for which certain soil types are fitted, and also experiments in fertilization and soil building, and the matters pertaining to the farm. I know of tests that have been made by this experiment station in the past few years for the purpose of determining the value of fertilizers in the production of cotton in this State; I have just recently been furnished the results of such experiments by the director of the station.

They made those tests in 48 localities in the State, covering all soil types, and farming systems of the State. Those tests are usually made in cooperation with some actual farmers, and they would in this case be made by growing a certain amount of land without fertilizers, another certain amount with certain amounts of fertilizers, and another certain amount of land with other amounts of fertilizers. The results of those experiments were as follows, and the figures I give are averages for the 48 experiments.

With no fertilizer they produced an average of 98 pounds of lint cotton per acre; with 325 pounds of fertilizer per acre, produced an average of 203 pounds of lint per acre; [fol. 802] with 650 pounds of fertilizer, produced an average of 260 pounds of lint per acre.

They were all made in the same years, they are 1923 and 1924, covering two years, in the same places at the same time. I can give the average yield of cotton for Alabama during the same two years. In 1923 the service which I represent estimated the average yield at 91 pounds, and in 1924 at 154, being an average for the two years of 122 pounds. I speak in terms of lint cotton per acre.

For those same two years we estimated the amount of fertilizer used per acre at about 230 pounds, being 238 for 1924 andl slightly less than 230 for 1923.

We have checked our estimates of production for cotton against the United States Census final ginning reports, and find over a period of years we obtained an accuracy of from 95 to 98 per cent. That is in checking our figures of our State service with the actual figures of the Department of Interior on final results.

As to what percentage of accuracy the United States Board of Health requires of a State before the State is admitted into what they call the Bureau of Vital Statistics: The Bureau of Vital Statistics is a part of the United States Census Bureau. They require an approximate accuracy of 90 per cet before admission into that area. Our average has been from 95 to 98 per cent accurate for the country as a whole. (Tes. 1192-97.)

As to whether I can tell what the cost of producing cotton over the entire cotton producing belt has been in recent times: That is a question which may not be answered with any degree of accuracy. A good many surveys have been made, but unfortunately, any survey is usually made with the better class of farmers, and requires more or less of adjustments to lower yields, so that to answer the question directly as to what it costs to produce cotton, it is hardly possible to do it. In noting those surveys, however, some other related facts have been shown, which are accepted as relatively accurate.

A recent survey on that subject showed that where the expenditure for fertilizers was less than $2.00 per acre, the acre yield averaging only 36 pounds of lint. With an

expenditure of $3.45 on the average, the yield was 143 pounds average. With an expenditure of $4.80 it was 223 [fol. 803] pounds; with an expenditure of $6.90 it was 308 pounds; and with the expenditure of $7.40, it was 380 pounds. That was disclosed by the most recent survey that was made by our own bureau of the Department of Agriculture.

Practically all cost surveys have shown that the increased use of fertilizers up to a certain limit has resulted in an increased yield per acre, not only for cotton, but all other crops. It applies to all crops.

A study of the United States Census report for 1920 discloses the fact that the Southern cotton-growing States lost from the farms during the preceding 10 years, about 600,000 negro population; about one-third of which were actual farm laborers. I might say that all censuses have shown interstate and intrastate migration of population from the farms to the cities, from the cities to the farms, but it was never so great as during that period. Most of these losses which I refer to as relating to the negro population were from the Southeastern cotton-growing States. Some of them migrated to the industrial centers in the South, perhaps a larger number to the industrial centers of the North, and East, while some actually migrated, as has been the case in a number of decades, from this farming section of the country across to the Western or Southwestern section. Texas and Oklahoma.

As to what, from my contact with these matters, and my experience, is the cause of the migration of these negro laborers from this section into these other sections, or from the farm into the industrial cities of Alabama: Undoubtedly it was started by the infestation of this section of the country by the boll weevil, which makes cotton growing much more difficult, and resulted in the negroes finding it next to impossible to grow cotton profitably under the systems which they had been taught for years; of course, encouraged by the higher wages in the industrial vocations, and opportunity for doing more profitable farming in the Western States, where the weevil is not so damaging. In the last few years the farmers have learned quite a good deal about the control of the boll weevil, and also about methods of farming so as to get the cotton crop matured, and escape the attack of the boll weevil.

We found that that unusual emigration continued up to perhaps as late as 1921. Since that time there has been a [fol. 804] continuation of migration, not quite to such an appreciable extent, but still continuing. In my judgment the cause of this emigration is chiefly the temptation of the higher wages in industrial vocations. The experience of the farmers in this Southeastern Section with the boll weevil has led to an increased use of fertilizer in order to combat the boll weevil itself; the increase has been very decided in some States, and due to the reduction of the carload rate usually follows immediately the infestation by the boll weevil some less fertilizer, but on the whole an increase; the increase coming in States that have had their weevil experience for about five years. That seems to be the period during which the farmer learns to combat the weevil, and apply the improved methods of farming. As to how the farmers have undertaken to meet this loss of farm labor, and how, in my judgment will they have to undertake to meet it in the future: We find that two things are necessary, and have actually been practiced. First, is better systems of acreage distribution; and farming methods leading to a larger utilization per man of crop acres; and second, by increasing the yield per acre by some method of soil building, the latter being chiefly accomplished by the increased use of fertilizers. (Tes. 1197-1202.)

I have made study of the surveys of the United States Department of Agriculture relative to the average net income of farmers throughout the United States. A recent survey by the Department determined the average net income of the farmers reported. It transpired that the farmers reporting in this survey were above the average size of farms, as measured by acres employed, so that it was necessary to reduce their findings to a per acre basis, and then apply that to the known average size farm, in order to determine what it meant to the average farmer. I took occasion to make such an application, which gave me the following approximate results: That the net income per farm in the North Atlantic States — this is for the year 1924—was $700.00; the net income for the South Atlantic States was $280.00. The South, $250.00—for the

East South Central, $255.00; for the West South Central, $574.00; for the East North Central, $807.00; for the West [fol. 805] North Central, $1,731.00; and for the far Western States, $216.00.

The average sized farm in the North Atlantic States approximately 100 acres; for the South Atlantic 84 acres; for the East South Central 75 acres; for the West South Central 174 acres; for the East North Central 109 acres; for the West North Central 234 acres; and for the far Western, about 316 acres. The far Western includes the Mountain and Pacific States, and they vary—those two sections vary, and the average for the entire group is about 300.

The East South Central—Kentucky, Tennessee, Alabama and Mississippi. In the South Atlantic are all the States on the Atlantic Coast, from Maryland to Florida. In the West South Central, Louisiana, Texas Oklahoma, and Arkansas. The South Atlantic, and the East South Central are the chief users of commercial fertilizers. The farmer used 3.6 million tons, and the latter one million tons, out of 4,900,000 tons used this year by cotton producing States.

I have made a study of the production of cotton in Alabama and Georgia as compared with the like production in Texas and Oklahoma. As a basis for comparison, the average yields for five years in Alabama were taken as 100. It was found that the average yield in Georgia for the five leading crops was 98 per cent of Alabama's yield, while Texas was 139, and Oklahoma 129.

I included in that five leading crops, cotton, corn, hay, oats, sweet potatoes, which are common to all four of the States.

Cotton, by long odds is the most important of these.

As to whether, so far as the value of the crops is concerned, cotton would exceed all the others put together: Hardly in those four States, due to the fact that Oklahoma raises a good deal of grain, both of wheat and oats. I should say that in Alabama and Georgia, cotton easily exceeds all other crop values.

In the first place, Texas uses practically no fertilizer in cotton production. Less than 1 per cent of the cost of production of cotton there is due to fertilizers. They do use a little, but just a few tons. Oklahoma uses almost none, I think about 49 tons this year.

In interpreting the meaning of these comparisons, as they relate to the future, we think clearly that Alabama [fol. 806] and Georgia must meet the competition of Texas and Oklahoma. They are able, with the use of fertilizers, and by their increased yields, due to natural soil facilities, freshness of soil, etc., to produce cotton at a less cost than we can, so that we must meet that competition or get out of the cotton-growing business; with their large acreage yet undeveloped, they can put us out of the business by growing cotton at a price which will not return us the cost of production. Of course, that means ultimately that we must quit growing cotton, or meet that competition, and I think that to meet it, we must increase our acre yields, following an increase in soil fertility, and the easiest, quickest and best method we have found so far is to use commercial fertilizers. Now, we are very frank to say to the farmer that that is not a permanent soil building, but we find that the farmer sees fit to increase his yields by increased fertilizer uses. (Tes. 1202-1206.)

While it does not build the soil permanently, it does greatly increase crops, as I have shown.

I have recently prepared a bulletin for distribution by the Extension Service on the cost of farming, rather on the subject of economic production, which goes in in part to the general cost of farming.

It became necessary in the compilation of this statistical bulletin to again compare Alabama and Georgia as being of one type, or Texas and Oklahoma of another type, and in doing so we made a calculation from the estimates of our Department which includes the cost of general farming, consisting of man labor, interest on investment, capital, team-labor, and fertilizers. Those are the four main items in cost, in farm production. That was made for 1924. We found in that year that Alabama farmers, by comparing the cost of those four general items with actual yield of crops or production of crops—we found that Alabama farmers lacked $34,000,000.00 receiving the full wage rate paid to farm workers. I might explain that in finding the cost of production, the farmer is always credited with his wage rate, if he is a worker, and he usually is. The same way with the value of members of his family, if they work on the farm. Now, it is assumed, we think practically, that the hired labor on the farm, the interest on invested

capital, which must take care of taxes, upkeep of the farm, [fol. 807] etc., and fertilizers, and team labor, which takes care of replacement, and feed of the teams, must be paid. There is no way the farmer can get around paying for those items, so that what is left, must pay, if at all, his wages and his profit. If there is nothing left, of course he gets nothing for his wages, or that of the members of his family. So that on that basis we found that the Alabama farmers lacked $34,000,000.00 receiving as much as they should have paid out for those items. The Georgia farmers failed in the same respect by $112,000,000.00. On the contrary, the Texas and Oklahoma farmers received their full wage rate, and a profit besides, amounting to $81,000,000.00 for Texas and $84,000,000.00 for Oklahoma.

Fertilizer is used in Alabama according to the records of the Department of Agriculture—State Department—have increased from 180,000 tons in 1921 to 580,000 tons in 1925. The State Department selling tax tags for those two amounts in the years named. The laws of Alabama require the fertilizer sold to carry these tax tage, and they are issued by the State Department of Agriculture. In that way a very accurate check on the amount actually sold in the State has been kept.

As to what, in my judgment, this increased use of fertilizer in Alabama is due to: It is undoubtedly due in large part to the encouragement on the part of the organized workers in agriculture, officially and otherwise, who are, and have maintained for several years past, a definite program of soil building and heavier use of fertilizer. I refer especially to the Experiment Station, the Extension Service, and all agricultural workers connected with those two services, including the State Department, and there are some private workers, who are cooperating, such as the Railroad Agricultural Agents, and the Chambers of Commerce, bankers' organizations, etc.

Based on my experience from 1921 to 1925, as to what, in my judgment, is a reasonable estimate for the future—assuming that these same agencies will continue to work in the same way, along the same line: I should say that the results so far point to an ultimate profitable use of 1,500,000 tons on the present cotton acreage, and something like 3,000,000 tons more on the remaining six million crop acres

[fol. 808] in this State. The program really points to about that future use.

All our investigations disclose the fact that the use of fertilizers is profitable and necessary for economic production of all crops, and on our 8 or 9 million acres of crop lands we might use something like 4,000,000 tons with profit, if it could be bought at a price which would return a profit; at a reasonable price, I should say. (Tes. 1206-1210.)

Cross-examination:

When you undertake to determine the cost of farming or the yield, it is a mighty difficult proposition if it were gone at according to known cost accounting systems.

"Q. What I mean by this is, you can take two farmers, and put them side by side, give them the same amount of land, use the same amount of fertilizer, and the difference in the method of work, one man will make twice as much as the other, wont' he?

"A. I do not know what I would say that he might make twice as much, but it has happened that material differences have occurred."

This departure of the negroes from this section started in 1915, and continued in abnormal volume until about 1921.

"Q. And, at that time, when the boll weevil struck this section you would have a man that would have, say 50 acres of land on which he had been making 50 bales of cotton, and when the boll weevil struck him he would make two or three, instead of 50, wouldn't he?

"A. I don't think we ever had any land in this State of any large areas that ever produced a bale of cotton. Of course, we have had some people that did it, but not on a large scale.

"Q. Take half a bale—just cleaned them out, didn't it?

"A. Yes. Our average yield before the boll weevil came was something around 40 per cent of a bale to the acre."

Regardless of the effect of that situation, I believe there is at least one section of Alabama, down around Enterprise, where they built a monument to the boll weevil, because of

[fol. 809] the changed conditions of the area. South Georgia,—prior to the coming of the boll weevil, I believe that was a cotton section. The fact is that South Georgia has first turned to peanuts, and have recently come back to a very large cotton acreage. They have become interested in tobacco, but are growing it on rather a small acreage. I do not know the value of the tobacco that was sold by the farmers of South Georgia this year. I have not any distinct recollection just what it amounted to.

There is a section in Central Georgia that has gone into peach production, and I understand quite profitably so.

I would not say that, in the State of Mississippi, the principal production of cotton in the State of Mississippi is in some nine or ten counties in what is known as the Mississippi Delta, but it is known that their acre production is very large, larger than the rest of the State. They have not heretofore used any fertilizer to any extent much, in that section. I have understood recently that they are turning slowly to the use of fertilizers. Certain kinds of fertilizers.

I do not think I am informed well enough on that to say what might be considered a reasonable price for fertilizer. It has been noted from statistical studies that there is a very decided correlation between the price of cotton and the price of fertilizers, and relatively in the use of fertilizers. When cotton is high, it seems that the price of fertilizer has to some extent followed it, and the farmer has not been prevented from using it by high prices so long as the price of cotton is high. The farmers' psychology depends very largely sir, on the price of cotton. I should say that any difference, which in the aggregate would increase the farmers' fertilizer bill, would affect him to some extent.

"Q. I was just wondering whether you had in information, and from actual experience as to the effect of a difference in the price of from 25 to 30 cents a ton from year to year as to its actual effect upon the use of fertilizer.

"A. Only in this way, sir; that I have had an opportunity to study the results obtained by the Alabama Farm Bureau Federation, who were able by some business methods, I believe, to obtain fertilizers a little more cheaper than the outside farmer, and they found that they can, that [fol. 810] their ability to get those fertilizers at a lower

price, did encourage the use of it by their members. Now, just what their differences were, I could not answer. I have not their records." (Tes. 1210-14.)

With respect to the acreage that I have shown in the average farm in the various territories: I got the figures from the United States Census Bureau, and they arrived at that by dividing the total acreage by the total number of farms.

As to what has been my observation as to the relative advantage to the farmers in this State in purchasing materials through their cooperative associations, and doing their own mixing on the one hand, as compared with the purchase and use of complete fertilizer on the other: That is the method followed by the farm bureau, and I just stated that they found that they could, or did procure separate ingredients, as we term it, for their members more cheaply than the outside farmer was able to buy through the usual channels of trade.

There is very little hired labor actually used in Alabama, except for peak period when extra help is used. Most of it is farm owners, and farm tenants. We had, in 1924, about 505,000 farm workers in the State, and really, that question can be definitely answered, and I will give it to you. 37 per cent of that number of 505,000 in the United States—that refers to the United States—21.2 per cent in Alabama were farm owners working, 29.3 were tenants working, and 35.5 per cent were home workers—I mean by that, the members of the farmer's family, and 14 per cent were hired laborers.

I think the practice generally followed in which the share tenant farmer, or what you call the cropper is half-and-half, the farmer, the landlord buys the fertilizers, and out of the crop he pays half and the tenant half. That is my understanding of the general custom for the cropper. Of course, the share tenant or the cash tenant buys his own fertilizer. (Tes. 1214-16.)

Redirect examination:

"By Mr. White:

Mr. McGehee asked you on cross whether one farmer immediately besides another, each using the same amount

[fol. 811] of fertilizer, might not differ greatly in the amount of production. While that might be true as to specific instances, would it be true when you applied it on a very general scale?

"A. I might answer that questions in two ways, sir; first, that in all these investigations we follow the well known statistical law of averages, which is almost a law of nature; and the second place, that even with the adjoining farmers, it has been found that the boll weevil will eat up a field on one side of the road and hardly touch that on the other. We don't know, hardly, how to explain that; but it is true."

I was asked a question about the monument at Andalusia, Alabama, to the boll weevil. That was erected at a time when peanuts and peanut oil, and other crops which they took up, were at peak prices. As to whether there has been any change in sentiment as to the propriety thereof, erecting this monument to the boll weevil, since the price for peanuts and similar crops have gone down: I do not think I can answer that latter question except to say that in that immediate section the farmers seemed to have returned to cotton as their first love, in large measure. It is true that the advent of the boll weevil taught all farmers some wholesome lessons as to proper distribution of the crop on their farms, which they have still remembered. I have not seen them lay any flowers on this monument at stated intervals during the year, or specific months.

"Q. Now, a question was asked you as to the effect of the farmers buying fertilizer by what counsel on the other side referred to as inappreciable difference in the cost to him—I ask you this question: When a farmer is going along, falling behind, that is, his outgo is more than his income, is it or not true that he scans differences in price very closely, and is affected by them?

"A. I think so, sir; and the farmer who uses on a plantation or average size farm approximately 10 tons of fertilizer, would certainly think about $4.00 or $5.00, I think."

It would have some influence on it, I think.

Practically all members of the Farm Bureau so purchasing their fertilizer have increased their use, according to the advice of the experiment station and extension service.

[fol. 812] I gave some figures showing the failure of the Alabama and Georgia farmers to receive the normal wage paid for farm labor. The number of farms in Alabama is about 250,000, and that into the figure I gave as $34,000,000.00 would be about $130.00 a year per farmer.

Practically all farmers, operators, are actual workers on the farm. There are some owners who are not farmers, and not so listed in the Census Bureau. The Census Bureau only counts a farmer who is on the farm and operating it.

We have 505,000 workers and 250,000 farms; the average is a little over 2 to the farm. The number of farms in Georgia, my recollection is, about 315,000 farms, and their shortage was $112,000,000.00, which would make something over $300.00 per farmer, lacking in receiving his wage rate. (Tes. 1216-1219.)

(Witness excused.)

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J. H. Alldredge was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

My name is J. H. Alldredge; I am head of the transportation department of the Alabama Public Service Commission. I have had about 15 years traffic experience in various capacities.

I want to say that I endeavored not duplicate unnecessarily testimony that has already been put in the record, and for that reason I discarded some of my exhibits that I had previously made.

There is included in this investigation a 13th section complaints against the revised Alabama intrastate rates on fertilizer, and my testimony will be submitted for the dual purpose of sustaining the Alabama rates in the 13th section case and establishing their reasonableness for general application on interstate traffic throughout the Southeastern Territory.

The Alabama Commission issued a decision on May 26, 1924, prescribing uniform mileage scales of rates for general application throughout the State on intrastate traffic. These rates are in effect today except in that territory in

[fol. 813] West Alabama involved in the Meridian Rate Case. A copy of the opinion of the Alabama Commission has already been filed in this record by Witness Drescher as Respondents' Exhibit No. 159, and I shall not burden the record with a duplicate copy.

Agriculture has been in the past and still is the basic industry of the South, and fertilizer is an indispensable asset of the agricultural industry. It is a vital factor in agricultural production. After considering these important facts and all other pertinent facts, both commercial and transportation, surrounding the movement of fertilizer in this section, the Alabama Commission reached the conclusion in the case before it that it would be economically sound, in the general reorganization of our rate structure, of which the revision of fertilizer rates was a part, to assign to fertilizer a relatively low basis of rates in order that it might move freely and thus contribute something to the welfare of the whole public, including the carriers.

I shall describe some of the main considerations which prompted the Alabama Commission in prescribing the scale of rates shown in its order above referred to before dealing with other phases of this case.

Many difficulties were encountered in trying to harmonize a revised mileage scale of rates in Alabama with the prevailing interstate rates because of the lack of consistency and uniformity in the latter. It was utterly impossible to devise any uniform system of rates for application in Alabama that would dovetail into the hodge-podge interstate adjustment in effect at that time and now. The only thing left for the Alabama Commission to do under the circumstances was to give due consideration to the commercial and transportation characteristics of the commodities designated under the general term of fertilizer, and then take the precedents which the Interstate Commerce Commission itself had set in its formal decisions with respect to this commodity at their face value and follow them as nearly as possible so that the obligations of a State Commission under the Federal law would be discharged. That is what was done by the Alabama Commission.

Fertilizer is a distinctive commodity from both a commercial and transportation standpoint. It has many characteristics that distinguish it from all other commodities

[fol. 814] entering into the channels of trade and commerce and entitle it to a relatively low basis of rates. These facts were recognized by the Interstate Commerce Commission in several of its earlier decisions, and they were given proper consideration by the Alabama Commission in its decision. In Virginia-Carolina Chemical Company vs. St. Louis Southwestern Railway Company, 16 I. C. C. 49, decided April 12, 1909, involving rates on fertilizer from Shreveport, Louisiana, to certain destinations in Arkansas, the Interstate Commerce Commission said:

"Fertilizer is a low-grade traffic, subject to no great risk in transit and requiring no special service for its transportation in the sense that 'special service' is generally understood. Its free movement and use is an auxiliary tending to produce and furnish a larger volume of traffic and thus promote the prosperity of carriers and their patrons, so that considering both commercial and transportation conditions, it is entitled to comparatively low rates."

The foregoing finding was quoted and reaffirmed in Meridian Fertilizer Factory vs. Vicksburg, Shreveport & Pacific Railway Company, et al., 20 I. C. C. 554, decided April 4, 1911. A similar finding was made in the case of Meridian Fertilizer Factory vs. Texas & Pacific Railway Company, et al., 26 I. C. C. 351, decided March 10, 1913, wherein the following language was used:

"In determining what are reasonable rates to be applied to the transportation of fertilizer between the points in question, due weight must be given to the nature of the commodity, the low cost of handling the traffic, and the fact that its free movement is an auxiliary to the production of a larger volume of traffic to the carriers."

As will be noted from reading the opinion of the Alabama Commission in the matter of fertilizer rates, its findings correspond exactly with the findings above quoted.

Fertilizer is used in this section of the country at least solely for the purpose of increasing the yield of agricultural crops, and it does increase the yield materially. On most of the agricultural lands of this State and the Southeast generally, it is necessary to use fertilizer in order to make

[fol. 815] farming a profitable industry. It is necessary to use it, too, from year to year. Fertilizer has been considered for years in this section as absolutely essential in farming operations. Its liberal use is continually being advocated by all thoughtful people, no matter what their occupation may be, because of the vital relation of agriculture to the general welfare of the public. Even at low rates, the burden of transportation falls rather heavily on the movement of fertilizer. Freight must be paid on a heavy tonnage in order to obtain a comparatively small percentage of plant food which is the essential element in fertilizer. The plant food requirements for fertilizer in the different Southeastern States, according to my investigation from reports of the State Departments of Agriculture, range from 10 per cent to 16 per cent of available plant food. The requirements in Alabama are the highest of any of these States. Using a percentage of 16, the highest, a ton of fertilizer would contain 320 pounds of available plant food, but freight must be paid on a full ton. (Tes. 1219-24.)

So far as the distribution of commercial fertilizer for use on the farms is concerned, the movement is seasonal. March is the month of heaviest movement in this section. The movement, therefore, takes place after the period of heaviest movement of farm crops has been accomplished. No special equipment is required to haul fertilizer. It moves in ordinary box cars. Of course, reasonably prompt service in the transportation of fertilizer shipments is necessary, but special service in the sense that we speak of it in connection with the transportation of live-stock and perishables is not required. The movement of fertilizer materials is distributed over a longer period usually than the movement of commercial fertilizer ready for use. Many of the commodities embraced in the fertilizer list move regularly throughout the year. The extra cost which the carriers have emphasized in the assembling of cars to take care of the heavy movement of fertilizer has some compensation in the heavier loading of trains, especially the local trains that run light so frequently.

The carriers had submitted a scale in Alabama which they stated was based upon the Royster scale, and I may remark right here that they are different from what they now propose; and the shippers submitted a scale which was based [fol. 816] upon a certain percentage relationship to the

scale prescribed by the Interstate Commerce Commission in the Memphis-Southwestern Investigation. While this matter was pending before the Alabama Commission, the Interstate Commerce Commission announced its decision in the Blackshear Case, 87 I. C. C. 654, in which the propriety of following the Royster Scale and the Memphis-Southwestern Scale in prescribing rates on fertilizer was considered. The Interstate Commerce Commission in that case definitely and positively rejected the Royster scale and stated that the Memphis-Southwestern scale furnished a fairer guide for determining maximum rates on fertilizer from Blackshear to Florida points than the Royster scale.

The Alabama Commission accepted this decision as definitely rejecting the Royster scale for application in the Southeast, and as fixing the general principles under which the scale should be constructed, that is, by using the scale prescribed in the Memphis-Southwestern Investigation as a maximum guide. This principle was reinforced by the fact, which was commented upon by the Interstate Commerce Commission in several cases, that the level of rates in the Southeast is lower than in the Southwest, and by the further fact that the volume of the fertilizer movement in the Southeast far exceeded the volume of the movement in the Southwest.

The Alabama Commission was fully mindful of the natural difficulties in the way of adopting a scale of rates for uniform application over the Southeast, but these difficulties are encountered in every attempt to revise the existing rates on any commodity upon a basis of a common level for this entire territory. The judgment of the carriers and the several regulating bodies have differed in the past about rates, and when it is attempted to prescribe a common level, or rates for the whole territory, quite naturally the previous judgments of those responsible for shaping the rate structure must yield to the new conditions.

This was one of the big difficulties that presented itself to the Alabama Commission in arriving at what it considered a just and reasonable scale that might be used for general application in the Southeast. The level of the fertilizer rates established in the Carolinas at the highest point, dropped down slightly in Georgia and Alabama, and still [fol. 317] lower in the Mississippi Valley. The carriers have proposed the highest scale, which would have ma-

terially increased the revenue derived from fertilizer traffic if applied in Alabama and the Southeast generally, and what the Alabama Commission did in following the precedents which the Interstate Commerce Commission had set, was to arrive at a scale which was intermediary between the highest and the lowest ones. I will endeavor to point that out clearly in my exhibits.

Another reason outside of the precedents which the Interstate Commerce Commission itself had fixed in rejecting the Royster scale that likewise suggested to the Alabama Commission that it would not be proper to adopt it was, that when it was originally prescribed, the average loading in that territory of fertilizer was approximately 17 tons a car, while the average loading in Alabama at that time was about 23 tons per car, or about 6 tons higher. Then again, it originated in a territory whose rate structure had been influenced somewhat by the rate structure in Official Territory, and had taken the form of relatively low class rates and relatively high commodity rates; and we did not have such a rate structure as that in Alabama, or in the heart of the Southeast, and since the decision of the Interstate Commerce Commission in Docket 13494, the rate structure even in the Carolinas will be reorganized by an increase in the class rate structure.

I now offer for the record my Exibit No. 472, each sheet being separately numbered.

(The statement was thereupon received in evidence and marked "Protestants' Exhibit No. 472, Witness Alldredge.")

Sheet No. 1 represents a comparison between the Alabama Single Line Scale on fertilizer for the standard lines, with the Single Line Scale prescribed in the Memphis-Southwestern Investigation, and the single line scale proposed in this proceeding by the carriers. And this exhibit also includes the joint line scales. It is not necessary to comment extensively on this sheet, it speaks for itself.

Sheet No. 2 is a graph showing the comparative levels and methods of gradation of the Alabama Single Line Scale and the single line scale prescribed in the Memphis-[fol. 818] Southwestern Investigation, and the single line scale proposed here by the carriers.

Sheet No. 3 analyzes the gradations in the Alabama Single Line Scale and the Memphis-Southwestern Scale, single line, and the carriers' proposed scale. It very clearly shows from that exhibit that the proposed scale of the carriers here is very irregular indeed, and the Memphis-Southwestern scale also has some raggedness in it.

The method of grading fertilizer scales, in my judgment, is quite an important matter, and I will elaborate on that in a moment. I will do it right now.

The minimum weight under the Alabama Scale is 20 tons, or 40,000 pounds. When the Alabama Commission came to consider that matter, it decided that the time had come when an increase in the minimum weight could properly be made. The minimum weight had been 15 tons in Alabama, and it was 15 tons in the Memphis-Southwestern scale, and the Alabama Commission increased the minimum weight in Alabama to 20 tons. Our information is to the effect that it created very little disturbance in trade channels. Of course when the minimum weight on any commodity is increased there is some disturbance in trade channels, but so far as we have been able to determine, we have watched it rather closely. the trade has accommodated itself to the increased minimum in Alabama very satisfactorily, and we hear no complaint. I might say this, however, that if in this investigation the Interstate Commerce Commission should determine that 20 tons is too high, and prescribe a lower minimum, we might not be able to hold our minimum in Alabama to where it is. The principal disturbance that we found occurred around the border of Alabama where factories just across the line could ship into the State under a 15-ton minimum. If that discrepancy were removed, I coubt if we could have any complaint at all against the minimum of 20 tons.

Now, as to grading the scale. Fertilizer factories are scattered all over the Southeastern Territory, and are actively competing in common territory in the sale of fertilizer, and if a scale breaks too abruptly, the chances are that one or more of the several factories competing in the same territory will obtain the advantage of the breaking scale, and use it against its competitors. The sale of fertilizer [fol. 819] seems to have pretty keen competition, and the fertilizer factories are scattered around, so that in almost

every spot in the Southeast there is competition between two or more factories.

Another thing, fertilizer goes out to the farmers at a season of the year when they are not busy with their crops, and they can very easily haul the fertilizer for some distance with their wagons at a relatively low cost, and unless the rates for the short hauls are kept within bounds, the wagon competition becomes quite severe. Our investigations show that about 15 per cent of the fertilizer distributed to the farms is now hauled by wagons. Hauling away from the factories and the warehouses by wagons, and even under the Alabama scale there is considerable wagon and truck competition.

I think our accounting as to those figures, I believe that traffic runs up to 15 or 20 miles. (Tes. 1224-1230.)

Now, there is another very important element entering into this question of grading of fertilizer scale, and balancing it, particularly as between the short hauls and the long hauls. There are factories situated along the Gulf Coast and the South Atlantic and North Atlantic Coasts that have a natural advantage in assembling their raw materials over the interior factories. And if a scale is graded in such a way that an artificial preference is given to the long-haul shipper over the short-haul shipper located back in the interior, he can combine that advantage with his natural advantage, and play havoc with the interior man. I do not know of anything that is more important to be considered in the grading of the scale than that fact itself. We endeavored to avoid that. I do not say that the short-haul shipper should have any advantage over the long-haul shipper; I think that both should have justice, but it is quite important to see that the scale is not unbalanced as between the short hauls and the long hauls.

I found in an investigation of the truck competition in Alabama under the revised Alabama scales, that one fertilizer factory had employed a truck, and made a contract with that truck to deliver fertilizer from its factory at a lower charge than the Alabama scale produced for the short hauls, and quite a volume of it was distributed by that fertilizer factory in that manner.

[fol. 820] Now, Sheet No. 4 compares the first three columns, eliminating the distance column, the ton mile earn-

ings under the Alabama scale, the Memphis-Southwestern scale, and the carriers' proposed scale for single line application; and the last three columns compare the joint-haul arbitraries or differentials. Averages are shown at the bottom of those columns, which indicate fairly well the relative levels of those different scales. In the Royster Case, the Interstate Commerce Commission prescribed a joint-line arbitrary of 20 cents a ton, and in the Memphis-Southwestern Case it likewise prescribed a joint-line arbitrary of 20 cents a ton, except in one place within the 250-mile block, where it is 10 cents. I presume that is a typographical error, but the Alabama Commission adopted the principle of abating the differential. It began at 30 cents a ton, and applied that up to 160 miles, then 20 cents a ton up to 360, then 10 cents a ton up to 500, and faded it out. Now, in the carriers' proposed scale they have evidently taken this joint-line differential as they appear now in the scale, since they have gone through those horizontal increases and reductions, and then just vary from 34 cents to 22 cents all through the scale from beginning to end, which makes a very ragged scale, but it is what the Commission prescribed in the Goldsboro Case.

Now, the average differential in the Alabama Scale up to 520 miles is 22 cents, and the Memphis-Southwestern 20, and in the carriers' proposed scale 29 cents. I presume it is understood here that Mr. Bosley has extended the Alabama scale up to 1,000 miles, and has proposed it here in this proceeding, to which we are entirely agreeable. It would have to be extended, of course, if it is applied in the Southeast.

Now, Sheet No. 5 shows a comparison between the minimum per car earnings under the Alabama Scale, the Memphis-Southwestern scale and the carriers' proposed scale. It will be seen that minimum per car earnings which are assured the carriers under the Alabama scale as a general rule exceed the minimum per car earnings assured them under the other two scales, and it also shows that it assures them of a minimum per car earning in Alabama for the first five miles of $16.00.

[fol. 821] Sheet No. 6 shows the percentage relationship of the Alabama scale to the Memphis-Southwestern. Now,

the Alabama Commission did not base its scale upon any definite percentage relationship to the Memphis-Southwestern scale. It used that as the Interstate Commerce Commission outlined in the Blackshear case, merely as a maximum guide, but in grading the scale it took cognizance of the conditions obtaining in that territory and graded it differently, but this sheet shows that under the single line scale the Alabama scale averages 87.3 per cent of the Memphis-Southwestern scale, and the joint-line scale in Alabama averages 89.1 of the joint-line scale in the Southwest.

Now, I consider Sheet No. 7 an important exhibit. Our friends the carriers have used some rather forceful language in describing the low measure of the Alabama scale in this proceeding, and this sheet shows how it compares with the normal interstate scales of three of the largest trunk line railroads operating in the South. The Illinois Central Railroad, the Louisville & Nashville Railroad, and the Mobile & Ohio Railroad. Those are their normal interstate scales, some of them have been in effect for years in this territory. And, it will be noted there that although there is quite a difference in the graduations in those scales —all of them differing from one another—yet the Alabama scale averages up to the level of those three scales. Now, Mr. Drescher, in the 13th section case, took the rates of the Louisville & Nashville made under this scale and compared them with the rates under the Alabama Scale for the short distances. Now, it is readily apparent that I could make a similar comparison for the long distances, and show the very reverse of what he shows, and I do make some of those comparisons. His scale is graded differently from the Alabama scale, but there is not much difference in the average level of those scales.

It will also be seen that the standard line scale in Alabama is really higher than the interstate scale of the Illinois Central Railroad, which runs into Alabama, but the Alabama Commission has for years, ever since the Illinois Central entered Alabama, treated it as a short line, and allowed it to charge higher rates than the standard lines, and in this case it accorded the Illinois Central Railroad [fol. 822] the short line basis, which, on local traffic, is 20 per cent higher than the standard scale, and on joint-line business between standard lines and short lines, 10 per cent higher, and yet, in the face of that fact, the Illinois Central

Railroad is a party to the 13th Section Case before the Alabama Commission.

I have extended those comparisons there to the ton-mile revenues and the car-mile revenues, and I think that exhibit clearly shows that the Alabama scale is as high as the average of those three interstate scales.

Now, sheet No. 8 takes the average haul on all tonnage in the Southern District for 1923, which is 214 millions, and compares it—and the average revenue per ton on all freight for this distance revenue per ton mile and per car mile—and compares that with the revenue production under the Alabama and Memphis-Southwestern, and carriers' proposed scales for that distance. Now, in the second table on that exhibit it makes that same comparison, but substituting the revenue production of those different fertilizer scales under what we have determined by our investigation to be the average outbound haul on fertilizer in Alabama, 55 miles. (Tes. 1231-35.)

There is an error in that exhibit there and I want to point it out. In compiling those car-mile revenues over there we used car loadings of 29.6 tons per car, which is the average loading of carload traffic. We ought to have used the average loading on fertilizer in the Southeast, which is 23.7 tons. That will affect the car mile revenues there to that extent.

That error is on Sheet No. 8, in compiling those car-mile revenues there, we used on fertilizer an average loading of 29.6 tons, and we ought to have used the actual average in the Southeast of 23.7. As a matter of fact, that 29.6 tons average loading there would not be far from what the average loading is of fertilizer in Alabama, because it is higher than in the Southeast generally.

Sheet No. 9 reproduces some revenue statistics published by the Bureau of Railway Economics. It is not necessary to comment upon that except to call attention to the earnings of the carriers in the Southern District as compared to the United States as a whole, and also the fact that it [fol. 823] is undoubtedly as favorable to the carriers' standpoint as they could make it, because they put it out. That is figured on book investment.

After the Commission established a tentative valuation of the carriers, they put out these statistics based upon that tentative valuation for a while, but they have changed

it, and they are basing it on the book investment. There would be some difference if it were based upon the tentative valuation, plus the additions and betterments.

Sheet No. 10 represents a comparison of the Alabama scale on fertilizer with intrastate scales of other States in the Southeast.

"Q. Your heading says 'Fertilizer and fertilizer material.' You don't mean that the column under the heading Florida represents both the rates on fertilizer and fertilizer materials, do you?

"A. No, I guess that ought to have been explained in detail right here, Mr. Tench. I don't think that is true of Georgia either. I think they have a rate on fertilizer materials somewhat lower than the fertilizer rate. This really ought to read fertilizer."

The Commission will notice there is quite a variety of intrastate rates, but I don't think there is any more variety of intrastate rates on fertilizer in the Southeast than there is of interstate rates. There are many varieties of those rates in both classes of traffic.

Now, Sheet No. 11, of two pages, compares the Alabama scale of rates on fertilizer with various specific rates on fertilizer in Southern Territory, and at the conclusion of the exhibit it indicates the changes which the Alabama scale would bring about in those rates. Those changes are totalled under each head line point. It will be noticed that there are just about as many increases as there are decreases when the Alabama scale is applied to those specific rates.

Now, Sheet No. 12 compares certain specific rates which were in effect in Alabama when the Alabama scale went into effect, with the rates produced under that scale. We wanted to show the Commission that the Alabama scale did not produce reductions in all instances in Alabama. There [fol. 824] were various specific rates that were increased, some of them carrying important tonnage.

Now, Sheet No. 13 compares the present rates on imported fertilizer materials from Gulf and South Atlantic Ports to various important Southeastern destinations with the rates that would be produced by the rigid application of the Alabama scale. I think you will find that numerous in-

creases would be made if the Alabama scale were applied rigidly. Of course, if the ports are equalized, it won't be possible to apply it rigidly to all the territory.

In Sheet 15 it compares the specific interstate rates on cottonseed meal in carloads with present Alabama intrastate scale for the same distances. Those rates apply from those head line points shown in the margin. At the bottom of the comparison under each head line point is shown the changes that the Alabama scale would bring about.

Sheet No. 16 makes a similar comparison of cottonseed hulls from certain important points to various destinations. That comparison is continued for four pages, and results are shown at the bottom of the comparison under each head line point.

No, Sheet No. 17 compares the Alabama scale on fertilizer, which covers cottonseed meal, with certain specific rates that were in effect on the Alabama intrastate traffic when that scale went into effect, and that shows also what changes were brought about by the application of the Alabama scale in existing rates.

Sheet No. 18 was correct when we made it up. It shows a comparison of certain interstate rates around across the border of Alabama and back into Alabama with the Alabama scale for the short line distance, but the carriers discovered these discrepancies, and they have been corrected just as far as they could, and they have about corrected all of them, that is to say, they have increased those rates up to the Alabama scale, but I left the comparison in here to show that the Alabama scale did not reduce all the rates there were.

Now, Mr. Drescher was kind enough to give you some comparisons between interstate rates along his line on fertilizer with the Alabama intrastate rates, in support of his 13th Section allegations.

[fol. 825] Sheet No. 19 gives you a comparison from our standpoint. It is tit for tat on that proposition. We can use his long-haul rates and he can use our short-haul rates, and both produce similar results.

Sheet 20 makes certain comparisons of minimum carload earnings on fertilizer under the Alabama scale with rates on sewer pipe and commodities in that list, face brick, commodities in that list, and lime.

Now, I want to offer my Exhibit No. 473.

(The statement was thereupon received in evidence and marked "Protestants' Exhibit No. 473, Witness Alldredge.") (Tes. 1235-40.)

This is a diagram, and it reproduces from the report of the Commission in I. & S. 1303. The Commission endeavored to indicate for one thing the comparative rate level in the Southeast and in the Southwest, of the Mississippi Valley Territory, and also as to what level would be necessary to preserve the carriers' revenue in the Fourth Section revision, over there, and what the carriers proposed to do in order to establish a common level between the Southeast and the Mississippi Valley, and the Southwest.

I am going to follow that now with my Exhibit 474, which compares carriers' proposed scale in this investigation, the Alabama scale extended, and Mr. Bosley has extended it; the suspended rates in I. & S. 1303, which were designed to bring the level of the Mississippi Valley up to a common level with the Southeast, as shown on my Exhibit 473, and the present rates as a result of the Commission's decision in I. & S. 1303.

(The statement was thereupon received in evidence and marked "Protestants' Exhibit No. 474, Witness Alldredge.")

That indicates that the Alabama scale, if applied in the Mississippi Valley, would increase the level of the existing rates over there, and yet almost it not entirely, bring the level up to what the carriers originally proposed to do in I. & S. 1303. It is quite difficult to apply mileage scale with those group rates in effect in the Mississippi Valley and determine accurately the relative levels of the rates, but I [fol. 826] have endeavored to indicate in a general way just what effect the Alabama scale would have.

I might say this, that it would not increase materially the Mississippi intrastate rates. I might go further and say inasmuch as our friend, Mr. Hayward has appeared here, that those Mississippi intrastate rates also haul mixed feed. I think they can ship 70 miles over there in Mississippi mixed feed in less than carload quantities, at $1.20 a ton.

Now, I would like to offer my Exhibit 475.

(The statement was thereupon received in evidence and marked "Protestants' Exhibit No. 475, Witness Alldredge.")

The carriers, at the hearing in Atlanta, made reference to the changes which Examiner Disque had proposed to make in the fertilizer rates prescribed in the Memphis-Southwestern Investigation, and I have attempted to analyze the situation and show the effect of his proposal. He proposed to put fertilizer on the class basis over there, and there was no differential between single line hauls and joint line hauls in his class scale, and that was one of the biggest changes that he proposed to make.

I think that is all. (Tes. 1240-42.)

Cross-Examination:

As to whether one of the considerations that caused the Alabama Commission to fix low rates in its scale it prescribed for distances around 15 and 20 miles, it was desired to arrive at a figure that would enable the carriers to compete with the truck competition: I might answer that this way; that one element which is considered was the desire to enable the carriers to maintain their short-haul business. I might give you some reasons for that if you want them. Well the loss of short-haul business by the car-iers is creating quite a problem for the regulatory bodies, as they lose that short-haul business, then they curtail the service, and that causes them to lose some more, and the tendency is to curtail again, and it starts a wheel within a wheel, and creates all sorts of complaints from those local communities that are very difficult to deal with. Of course, if [fol. 827] you start a scale low and they have no uniform gradation beyond that, it is true that makes the whole scale relatively lower than if you were to ignore that short-haul competition and started your short haul distances at a higher level. I don't think we started it at an unreasonably low figure; of course we may differ about that.

I think the principle difference between the scale prescribed by the Alabama Commission, and the scale at present maintained by the Louisville & Nashville, as is indicated in Sheet 7, is that the Alabama Commission's scale for distances up to 200 miles is materially lower than the Louisville & Nashville's scale, whereas for distances in excess

of 200 miles the reverse is true. It is a fact that the preponderance of the outbound movement from the fertilizer factories is for short hauls, the preponderance of the inbound movement on the materials is for the long hauls. Now, just what the relative volume of those two movements is, I really don't know.

I have not made any particular study of the rates in Southwestern Territory, west of the Mississippi River, as they were prior to the adoption of the 9702 scale. I am not familiar with the conditions under which those rates may have been established in that section. We just accepted the Commission's report for its face value; did not attempt to go behind it. It would not have done us any good if we had. That investigation was a general investigation of all rates, and was not confined at all to fertilizer rates. It is also true that the scale prescribed by the Commission in that case on fertilizer, represented largely an attempt to remove existing discrepancies and inconsistencies in the rates that existed in that territory, and it is also true of the Royster rates, I think. As to whether it is not true in the 9702 case, that the Interstate Commerce Commission was rather seeking to strike a level of rates in that territory based upon the rates as they then existed, than to determine what might perhaps under other conditions be considered a reasonable per se level of fertilizer rates for that section: It might be permissible to form that conclusion if you had only the Commission's report in the Memphis-Southwestern Case confronting you, but as to fertilizer, we had before the Alabama Commission turned loose its decision, the subsequent decision of the Interstate [fol. 828] Commerce Commission in the Blackshear Case, and I don't see how we could have done otherwise than what we did, if we wanted to follow the Interstate Commerce Commission's precedent.

Concerning if it is a fact that both in the Blackshear Case and in the action of our Commission in adopting the 9702 scale, that scale was simply adopted and followed—that is, the 9702 scale: The Interstate Commerce Commission followed it in the Blackshear Case, that is true, but we followed it only as a maximum guide in our case. We did not adopt the same method of gradation as they did over there. I might say this too, Mr. Gwathmey, that the Alabama Commission had quite a voluminous record before

it, and it knew what the measure of these interstate scales was here, of the trunk line railroads in this territory, and I don't think we missed the general level of those very far. I agree that in fixing freight rates consideration should be given to both cost of service and value of service. If you give consideration to the cost of service alone, the freight rates on every commodity would yield a fair return to the operation cost of service, and also a fair return to the value, or investment of property used in that service. That is, if you considered cost alone. Now, if you are also going to take into consideration the value of the service, which really means value of the commodity transported, it would follow that a reasonable freight rate on a high grade article will be more than the normal profit on the value of the property used, and that a reasonable return on the rate for a low grade article might not produce hardly more than out of pocket expenses. I don't think you can find any escape from that logical conclusion.

There are some commodities that ought to have lower rates than fertilizer. It is not at the bottom of the scale, but I think it is below the average. I would put it below sand and gravel, and slag and crushed stone, and commodities of that class. Perhaps coal. I don't know about lime; there is not so much difference there.

In fixing the level of our rates on fertilizer, in fixing this scale, we took into consideration that matter of where this scale fitted into comparisons with the rates on other low grade commodities. I think it is about right; and I think we had not only ample precedent from your Commission, [fol. 829] but we had ample precedent from what our trunk line carriers down here in this territory had been doing for years. (Tes. 1242-48.)

I have got a comparison in here on face brick. I think these rates are higher in cents per 100 pounds. But the carload minimum, of course, would be higher on the brick.

In answer to Commissioner Eastman's question about what we would take into consideration in making our rates on fertilizer in the State of Alabama, the Alabama Commission put out a rather complete opinion, giving its reasons. Our reasons, and the method that we used to the extent that it is stated in that report, is correct, and can be relied upon. That report shows that to a very large extent what we did was the Interstate Commerce Commis-

sion, having based its Blackshear Case on a situation West of the River, we took as our guide the scale fixed by the Commission in the Blackshear Case, reduced and made lower to the extent that we thought it ought to be, by the difference in the transportation conditions as we conceived them to be over here as compared with West of the River. I think that the United States Supreme Court, in the Wisconsin Case, told us that is what we ought to do, and we did it to the best of our ability. But now, that was not the only controlling element in the case. We had ample evidence there to support the correctness of that scale after it had been arrived at on that basis. In our judgment, of course if following that basis would have produced a scale that the record would not support, we would have had to discard it. We gave our basis in there. (Tes. 1248-50.)

I read several times the Commission's decision in Docket 9702 with specific reference to fertilizer rates. I recall that the Commission referred to and compared the Royster scale with the rates that were proposed by the various parties in the Southwestern Case, including the Meridian scale, which has been referred to.

The Commission undoubtedly specifically rejected the Royster scale as a measure of reasonable rates in the Southwestern Territory, it did not follow it.

I think the shippers predicated their case on the Southwestern Case. I think the case was submitted before the [fol. 830] decision in the Blackshear Case was announced. We did not arrive at a conclusion until after the decision in the Blackshear Case, as well as I remember. Whatever influence the Blackshear Case may have had upon the Alabama Commission, it could not have affected the shippers in Alabama, who were advocating the lower scale in Alabama than the Southwestern Scale would have produced; they had submitted their case before.

In the method of making rates, we took into consideration the difference in transportation conditions in the Southwest as compared with this territory. I stated by reason of those differences I thought that the rates in this territory ought to be somewhat lower.

Q. Now, why is it not a proper thing, if you are going to make rates that way, to do the same thing as com-

pared with a territory where the density of traffic is very much greater than in the Southeast? I refer to Central Freight Association Territory, for instance. In other words, do you think this, Mr. Alldredge, that, regardless of the difference in the commodities, of the differences in conditions, that it is a proper way to make rates in this territory just go over in some other territory where conditions are entirely different, and just take that as your sole standard in measuring rates down here. In other words, pre-judge all of the cases in the Southeast before they are ever tried, by something that was done a year ago in some other territory? Do you approve that way of making rates?

"A. No, I don't think that would be a proper way to make rates.

"Q. I knew you did not.

"A. But, I will tell you why we did not use the C. F. A. Territory rates as a guide. Their scheme of rates was so totally different from ours, that we cannot make use of comparisons to much advantage, and would not know what to do with it. Their schemes are so totally different that we could not utilize comparisons.

"Q. That is true in the Southwestern Territory on certain commodities?

"A. It is more comparable with our section than any other. I will say this, that if there is any commodity moving, in my judgment, on which the Southeast is entitled [fol. 831] to a lower rate than the Southwest, it is fertilizer rates. It consumes, ships and transports four or five times as much as they do over there, and if there is any commodity on which we are entitled to any different rates, in my opinion it is fertilizer."

I do not recollect whether or not the rates in the Southwest prior to the 9702 proceedings were materially lower than the Royster scale of rates.

"By Mr. Gaskie:

"Q. If that was true, is there anything peculiar about that to warrant all of the fertilizer rates south of the Carolina territory, clean around to Southwestern territory, including Southwestern Territory, lower than the Royster scale?

"A. I know that is true down to the border of the Southwestern Territory."

The carriers have introduced any number of exhibits in this proceeding comparing coal, crushed stone, sand and gravel, with fertilizer rates. As to it being a fact that a great per cent, if not practically all of those commodities, are loaded in open top equipment, and if that equipment does not move to loading point empty: That is generally true of coal and sand and gravel, slag and commodities of that kind, and crushed stone. (Tes. 1250-54.)

(Witness excused.)

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M. L. Cooper was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

My name is M. L. Cooper; my occupation is that of accounting. I am employed by the Alabama Public Service Commission as auditor. I have been so employed since September 1st, last year.

I was previously employed as follows: Car accountant, G. F. & A. Railway; chief of accounting department, Naval Air Station, Pensacola, Florida; accountant for Loveman [fol. 832] Joseph & Loeb, Birmingham, Alabama; chief accountant and auditor, Mathews Electric Company, Birmingham, Alabama; compiled U. S. Coal Commission Report for Tennessee Coal, Iron & Railroad Company at their Doena Mines, Birmingham, Alabama; chief accountant for Selma Creamery & Ice Company; my total accounting experiences extending back 12 years.

I have been instructed by the Alabama Public Service Commission to investigate and compile certain statistics in regard to the fertilizer movement in Alabama. I here submit Alabama Public Service Commission's Exhibit No. 476.

(The statement was thereupon received in evidence and marked "Protestants' Exhibit No. 476, Witness Cooper.")

Exhibit No. 476, supporting my testimony in this case, which I have personally compiled and certify to the correctness thereof. Such exhibit consists of sheets numbered

1 to 10, inclusive. I will now take up in order each sheet of this exhibit and explain the same.

Sheet 1 is a map. In my investigation I found it necessary to visit certain fertilizer plants located throughout the State of Alabama, from which I could obtain data that would be most fairly representative of the fertilizer movement in Alabama, and in order that the Commission might see at a glance the sources from which such figures were obtained and the location of each source, I prepared Sheet 1 of this exhibit, showing thereon the geographical location of the plants I visited and obtained data from. Sheet 1 also shows the railroads serving such plants. As shown by this sheet, the plants I visited are located in all sections of the State, some of them are among the larger plants of the State and some of them are among the smallest plants, but taking those visited as a whole, they are in my judgment fairly representative of the fertilizer industry in this State.

Sheet 2, Table 1: In this compilation I have used abstracts from statistics prepared by the Interstate Commerce Commission. The data in Table I of this sheet was obtained from the "Preliminary Abstract of Statistics of Common Carriers for the year 1923," issued by the Interstate Commerce Commission.

[fol. 833] This table indicates, by districts, i. e., Eastern, Southern, and Western, the miles of road operated, tons of freight carried, and ton miles.

The Pocahontas District, the classification is made as per statistics of the I. C. C., and I understand that includes the Pocahontas District. I understand in the Interstate Commerce Commission's statistics it is included in the Southern District, although these quotations from the Interstate Commerce Commission statistics.

Here, I want to add to my testimony, that the divisions of roads into the Eastern, Southern, and Western Districts throughout my testimony is the same as my other divisions, made by the Interstate Commerce Commission. The initials "I. C. C." used throughout my testimony refer to and stand for the Interstate Commerce Commission.

I am not sure that the Pocahontas District is included in the South; it is my understanding it is included in the North.

"Q. Why I asked, in fixing rates in 13494, I understood it was put in the Eastern Territory.

"A. I am not sure of that, but from these statistics, exact quotations from the I. C. C."

In other words, publications from which I gathered this data set out certain districts as Eastern, Southern, and Western Districts, and I have used in my compilations the figures as applied in those publications for these several districts.

Sheet 2: Table 2 indicates the fertilizer tonnage carried and per cent of fertilizer revenue total revenue. This latter figure for the Southern District the Commission will notice is 1.3 per cent. In other words, I wish to show that the total revenue derived from fertilizer carried by Class I roads in the Southern District is equal to 1.3 per cent of the total revenue derived from all freight carried in this district as compared to .3 per cent for Eastern District and .1 per cent for Western District.

That includes fertilizer materials; all fertilizer. (Tes. 1254-1258.)

[fol. 834] The figures shown in Table 2 were obtained from statement No. 24187, File 18-C-9, published by I. C. C. Bureau of Statistics, showing "Estimated freight revenue by classes of commodities; Class I roads, calendar year 1923."

In Table 3 I have shown by districts the total fertilizer tonnage originated and carried by Class I roads during the years 1920 through 1923, and I wish to call special attention to the fact that during each of these years the Southern District originated more fertilizer tonnage than either of the other districts and that the Southern District carried more fertilizer than either of the other districts, except during 1921 and 1922, and that for these two years the fertilizer carried in the Southern District was practically five times the amount carried by the Western District and was practically equal to that carried by the Eastern District. The figures in this table were obtained from I. C. C. "Statistics of Railways in the United States for the years 1920-21-22," published by the I. C. C., and from "I. C. C. Bureau of Statistics Bulletin No. 2489," showing summary of freight commodity statistics of Class I roads for the year ended December 31, 1923.

In Table 4 I show by districts for the years 1920 through 1923, the average weights per car of fertilizer originated and carried by Class I roads.

It must be noticed that in each of such districts, and in the United States as a whole, for each of said years the average weight per car as moved was in excess of the 20-ton minimum prescribed by the Alabama Commission in its Docket 4136, which rates are here under attack.

The minimum in force on Alabama intrastate movements during the years 1920 to 1923, inclusive, was 15 tons. It is apparent, therefore, that the 20-ton minimum applicable under the Alabama Commission's present order will not prejudicially affect the movement of this commodity.

The figures in Table 4 were obtained by dividing into the figures set out in Table 3 the appropriate number of cars in which the tonnage was moved in each instance. The statistics as to the number of cars so used were obtained from the same sources from which the data in Table 3 was obtained.

On sheet 3, in Table 5, is shown the average haul in miles per ton on all freight in comparative form for the Eastern, [fol. 835] Southern, and Western Districts, and the average for all districts for each of the years 1920-23, inclusive. Special attention is called to the fact that the average haul in the Southern District was longer than in any other district during these years.

The figures in this table for the years 1920 to 1922, inclusive, were obtained from "Statistics of Railways in the United States," published by the I. C. C., and for the year 1923 from "A Preliminary Abstract of Statistics of Common Carriers for the Year Ended December 31, 1923," published by the I. C. C.

Table 6 shows the average receipts per ton mile on all freight in comparative form for the Eastern, Southern, and Western Districts, as well as for all districts, for the years 1920 to 1923, inclusive.

While the average receipts per ton mile in the Southern District is smaller than in the other Districts, the Commission's attention is called to the longer average haul in the Southern District than in any other district, as shown in Table 5, and too, I will later explain in Table 16 on Sheet 6 of this exhibit that the expenses of the Southern District carriers are less than in any other district, which enables

the carriers in this district to haul freight at a very much lower rate per ton mile.

The figures quoted on this table were obtained from the same source as those shown in Table 5. (Tes. 1258-1261.)

"By Com. Eastman:

"Q. Those statistics for average hauls are a little bit misleading; they don't really indicate that that was the average length of the journey. In other words, they are reported by individual companies, and each company reports its portion of the through journey. A car moving a thousand miles, for instance, and the L. & N. hauling it 150 miles, it would, of course include that 150 miles in its average haul of freight, and the total movement of the car would be 1,000 miles.

"A. That is taken, though, on all commodities; it is not on the fertilizer.

"Q. Well, it is the same thing in every instance.

[fol. 836] "A. Yes, the comparison would be there."

In Table 7 comparison is made between the total revenue and revenue per ton on fertilizer; and total revenue and revenue per ton on all commodities. Note that the average revenue per ton on fertilizer, admittedly a low grade commodity, is approximately the same in the Southern District as the average revenue per ton on all commodities, including high grade commodities, in this District, while in the Eastern and Western Districts the average revenue on fertilizer is much lower than that on all commodities. In other words, the average revenue per ton on fertilizer in the Southern District is 99.135 per cent. of the average revenue per ton on all commodities in comparison with 90.189 per cent in the Eastern District and 74.916 per cent in the Western District.

The figures as to total revenue shown in this table were obtained from Statement No. 24187, File 18-C-9, published by the I. C. C., giving estimated freight revenue by classes of commodities; Class I roads for calendar year 1923; while the revenue per ton figures were arrived at by dividing these figures by the appropriate number of tons, which tonnage was obtained from the same source. The figures as to percentages were arrived at by calculation based on figures obtained from the source named.

The Commission will note that in Table 8 is shown the average hauls, in miles, and the average weights per car on all movements of fertilizer, interstate and intrastate in Alabama, separated as to inbound and outbound movement.

In Column 2 of this table are shown averages taken from strictly fertilizer and fertilizer materials moving within the Southeastern Territory, except imports, while in Column 3 are shown averages taken from the movement of all fertilizer ingredients, regardless of point of origin.

The average ton haul of inbound fertilizer in Alabama during 1923 is only 5.8 miles shorter than the average ton haul of all commodities in the entire Southern District, as shown in Table 5, while the average weight per car of fertilizer inbound, was heavier in Alabama in 1923 by 7.84 tons than fertilizer originated on Class I roads in the entire Southern District, as shown in Table 4; and even the outbound movement in Alabama during 1923 shows a heavier [fol. 837] average weight per car than the average weight per car on fertilizer originating in the entire Southern District by 4.13 tons.

Figures in Table 8 were compiled by me from the records of the plants designated on Sheet 1 of this exhibit.

On Sheet 4, Table 9, a comparison is made of the interstate and intrastate movement of fertilizer to and from the plants located in Alabama, designated on Sheet 1 of this exhibit. It will be noted in Section A of this table that of the total railroad movement inbound and outbound of strictly fertilizer and fertilizer materials in the Southeast, only 20.78 moves interstate, and of the outbound movement only 8.36 per cent (as shown in Table 10) moves interstate; while in Section B of table 9, which includes the movement inbound and outbound of all fertilizer and fertilizer ingredients, regardless of tariff classification and point of origin, only 47.95 per cent moves interstate.

Figures in Table 9 were compiled by me from the books and records of those fertilizer plants designated on Sheet 1 of this exhibit.

In Table 10 is made comparison of the percentages of railroad movement interstate and intrastate from those fertilizer plants located in Alabama designated on Sheet 1 of this exhibit, to the total railroad movement and also

to the total distribution of fertilizer by such plants, including their wagon, boat, and other deliveries. It will be noted that during 1923 the wagon deliveries amounted to 15.57 per cent of the total distribution, while the boat and other deliveries were 9.56 per cent, leaving only 68.41 per cent for intrastate railroad movement and 6.46 per cent for interstate railroad movement.

This statement shows that the railroad movement intrastate is 91.37 per cent of the entire railroad movement intra and interstate. This table further shows that the combined wagon and boat movement of such fertilizer is slightly in excess of 25 per cent of the total distribution.

Figures in this table were compiled by me from the books and records of those fertilizer plants designated on Sheet 1 of the exhibit.

Sheet 5, Table 11: Of the railroad movement from such plants, only 2.14 per cent moved less carload, while 97.86 [fol. 838] per cent moved carload; and this carload movement is 73.27 per cent of their total distribution.

Figures in this table were compiled by me from the same source as those set out in Table 10.

Special attention is called to the figures in Table 12, which show that of the entire carload distribution, comprising 73.27 per cent of the total distribution from said plants, as set out in Table 11, 2,722 cars out of 3,355 moving, or a percentage of 81 per cent, carried 20 tons and over. 20 tons is the minimum weight per car under the present tariff of the Alabama Public Service Commission, which went into effect July 25, 1924. In other words, before such tariff went into effect 81 per cent of the cars moving from these plants carried loads of 20 tons and over.

The figures in Table 12 were compiled by me from the same source as those set out in Table 10. (Tes. 1261-66.)

In Table 13 is shown the percentage of acid phosphate tonnage to the total tonnage of fertilizer distributed. In other words, of all the fertilizer distributed by said plants, there was 71.20 per cent of same either distributed as acid phosphate proper or used as an ingredient in the mixed fertilizer.

Of the outbound railroad movement from these plants, approximately 53 per cent of same moves as strictly acid phosphate, while the average sales price per ton of all fertilizers distributed by these plants, including said phos-

phate, was, for 1921, $21.02; 1922, $19.66; 1923, $21.23, not including prepaid freight thereon. These average sales prices per ton of all fertilizers, including acid phosphate, should be compared with the average sales price per ton of acid phosphate shown in Table 14, for 1921, $17.54; 1922, $14.41; 1923, $15.78, and these prices on acid phosphate included freight prepaid thereon.

The figures in Table 13 were compiled by me from the same source as those set out in Table 10.

It will be noticed on Sheet 6, Table 14, that the average sales price of acid phosphate sold by these plants dropped from $25.27 per ton in 1920 to $17.54 per ton in 1921, and $14.41 per ton in 1922, and then went back to $15.78 per ton in 1923 but again dropped to $13.55 per ton in 1924. All of these prices, as before mentioned, include prepaid freight thereon.

[fol. 839] The Commission will also notice that in my note to this table I explain that the tonnage of fertilizer distributed by the plants I visited in compiling this exhibit represents about 25 per cent of the total tonnage of fertilizer distributed in Alabama during 1923, and these plants being geographically located as shown on Sheet 1 of this Exhibit, the tables compiled in this exhibit should be fairly representative of the total figures for this State.

Figures in Table 14 compiled by me from the records of the fertilizer plants designated on Sheet 1 of this exhibit.

In Table 15 I have brought out in comparison by districts for the year 1923 the total freight revenue, revenue per ton of freight, revenue per ton mile, freight revenue per mile of road, ton miles per train mile, ton miles per loaded car mile, and freight density, all for Class I roads.

I wish to call special attention to the column headed "Ton Miles per Loaded Car Mile," where it will be noted the figure 26.76 represents the Southern District, while the average weight per car of fertilizer moving to and from plants in Alabama as shown in Table 8 is 30.54 tons, showing that the ton miles per loaded car mile of the fertilizer movement to and from plants in Alabama would be considerably more than on the movement of all commodities moving in the entire Southern District.

The figures in Table 15 were obtained from "A Preliminary Abstract of Statistics of Common Carriers for the Year Ended December 31, 1923," published by the I. C. C.

The figures for freight density were obtained from "Statement No. 24351, File No. 77-A-5," published by the Bureau of Statistics of the I. C. C.

Freight revenue per mile of road was obtained by dividing the number of miles operated in each district shown in Table 1 into the freight revenue shown in Table 15.

Table 16 gives in comparative form, by districts for the year 1923, operating expenses, taxes, net income and total revenue, per ton mile, from Class I roads. It should be observed that the roads in the Southern District operate at a lower expense, and their taxes in this district are lower than in any other district, while their net income per ton mile is greater than in the Eastern District.

[fol. 840] Figures in this table obtained from Sheets 16 to 19, inclusive, of "Statement No. 24351, File 77-A-5," published by the Bureau of Statistics of the I. C. C.

On Sheet 7, Table 17 is a chart showing the price trend of spot acid phosphate in New York from January, 1921, through December, 1923, heavy lines indicating the highest prices at all times, and dotted lines indicating the lowest prices at all times.

Special attention is called to the fact that the highest price of acid phosphate during the last six months of 1923 was $8.50 per ton, or 54 per cent lower than in January, 1921, which confirms the price reductions in Alabama as shown in Table 14.

The prices upon which this chart was constructed were obtained from the American Fertilizer Handbook of 1924.

Sheet 8, Table 18. This chart makes comparison between (1913) pre-war prices and those of 1924, of fertilizer materials and 14 other commodities. Index 100 represents 1913 prices.

From this chart it will be observed that even though fertilizer materials did go up during the war period, they have gone back to almost their pre-war price levels, while the other commodities shown on this chart still remain at extremely high price levels. In other words, fertilizer material was only 4.4 per cent higher in December, 1924, than during 1913, while iron and steel, the commodity that is next nearest its 1913 price level in December, 1924, was still 42.8 per cent higher than it was in 1913; and house furnishings were still 137.7 per cent higher than in 1913. I did not have the figures for 1925.

In 1923, as well as I remember, fertilizer was one and a fraction per cent higher. In 1924, for the same month, it was 4 and a fraction cents higher, I think, of what it was in 1925, I could not say, I have not seen the statistics on it.

The price levels upon which this chart was constructed were obtained from "Wholesale Prices of Commodities for 1924," published by the U. S. Department of Labor.

On Sheet 9, Table 19 gives for 1923 a comparison by districts of maintenance of way expenses of Class I roads, with depreciation shown separately. Attention is called to such figures for the Southern District. (Tes. 1266-70.) [fol. 841] It will be noted that the maintenance of way expenses for the Southern District is only 138 million dollars, or about 40 per cent of the 345 million dollars expenses of the Eastern District and about 43 per cent of the 321 million dollars expenses of the Western District, while the depreciation charged by carriers in the Southern District amounts to over 5 million dollars, which is almost three times the amount of the depreciation as charged by the carriers in the Eastern District and almost five times the amount of depreciation as charged by carriers in the Western District.

The table further shows that the carriers' retirement of equipment in the Southern District is entirely out of proportion as compared to the other Districts, for 1923. In other words, the retirement of equipment in the Southern District amounted to about 5.8 per cent as much as other maintenance of equipment expenses, not including depreciation, in comparison to 3.1 per cent in the Eastern District and 1.7 per cent in the Western District.

Figures in this table were compiled from data obtained from pages 7 to 9, inclusive, of "A Preliminary Abstract of Statistics of Common Carriers for the Year Ended December 31, 1923," published by the I. C. C.

In Table 20 I have reduced the figures in Table 19 to a unit basis of per mile of track operated in order that the Commission can see at a glance the facts which I endeavored to bring out in Table 19. In Table 20 it will be seen that the carriers in the Southern District during 1923 charged depreciation of maintenance of way and structures with $80.00 per mile of track operated in comparison with $15.00 charged by carriers in the Eastern District, and

$6.00 per mile charged by carriers in the Western District, and the equipment retirements in the Southern District during 1923 amounted to $172.00 per mile in comparison to $158.00 per mile in the Eastern District and $38.00 per mile in the Western District.

The figures of miles operated were obtained from "A Preliminary Abstract of Statistics of Common Carriers for the Year Ended December 31, 1923," published by the I. C. C.

Sheet 10: In Table 21 I have shown the net railway operating income of Class I roads, in comparative form, by districts, and for the years 1920 to 1923, inclusive, 1920 [fol. 842] being for only 4 months, such 4 months being those when the roads were under private operation; then I have shown in comparative form and by districts their investment as of December 31 of each of such years, in road and equipment and improvements on leased railway property, and from these figures I have determined their rate of return, which is shown at the bottom of Table 21 in comparative form by districts for the years 1920 through 1923, 1920 being for only 4 months.

The rate of return shown here is, of course, not the rate of return upon the fair value of their properties, as such valuations were not obtainable, at this time, but is the rate of return on the investment in road and equipment and improvements on leased railway property at the values shown on the books of the carriers and given here for the purpose only of showing the trend of the carriers' rate of return since 1920.

If, in the judgment of the Commission, book values of the carriers are generally substantially in excess of their fair value for rate making purposes, then the figures shown in Table 21 would indicate that the carriers in the Southern District are now receiving a net return substantially in excess of that which has been prescribed by the Commission, in the figure of 5.75 per cent.

The figures in Table 21 were obtained from "Statistics of Railways in the United States," published by the I. C. C., for the years 1920, 1921, and 1922, and from "A Preliminary Abstract of Statistics of Common Carriers for the Year Ending December 31, 1923," published by the I. C. C.

The rates of return were compiled by me from the income and investment figures shown in this table.

In sitting here this moring I have compiled some more figures that I think will be helpful.

I have compared the current assets and the current liabilities of the carriers in the Eastern District, Southern District and Western District, and I find that the assets—that is, the liabilities of the carriers in the Southern District equal nearly 53 per cent of their assets—that is, the current assets and current liabilities—while, in the Eastern District, the figure is 73 per cent, and in the Western District 76 per cent, showing that the current assets as [fol. 843] compared with the current liabilities, in other words, working conditions of the railroads in the Southern District as to current figures are in a better condition by 20 per cent.

I also wish to say that my figures indicate that the railroads in the Southeastern District are bonded about 60 per cent of their investment in road and equipment, in comparison to 60 per cent in the Western District, and 68 per cent in the Eastern District.

The preliminary abstract of statistics of the common carriers, published by the I. C. C., for 1923, gives figures from which I have compiled the percentages of accumulated depreciation as compared to the investment of these roads in the various districts, and I find that the roads in the Eastern District have accumulated a depreciation reserve of 9 per cent, in the Southern District 8 per cent, and in the Western District 6 per cent. (Tes. 1270-74.)

Cross-examination:

The Pocahontas Region is included in the figures as compiled by the I. C. C., from which I took my figures, in the Eastern District. Throughout my calculations and comparisons of per ton mile and other revenues, I have used the Eastern District as a whole.

"Q. Including what commonly is known as Trunk Line Territory, and Central Freight Association Territory, and including also the New England Region?

"A. Now, I am not prepared to answer from the tariff classification territories, but the figures were taken from the same classification by districts as the I. C. C.; in other words, the same classification was used all the way through in taking my——"

I am not prepared to say whether the figures would be different if I drew your comparisons between the South on the one hand, and Central Freight Association Territory, or Eastern Trunk Line Territory on the other. (Tes. 1274-75.)

(Witness excused.)

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[fol. 844] J. H. Alldredge was thereupon recalled as a witness and, having been previously duly sworn, testified further as follows:

I overlooked dealing with the short lines this morning in my testimony, and I wanted to devote just a few minutes to that matter.

The Alabama Commission recognized in its decision that the short lines were properly entitled to higher basis of rates than the standard lines, and it prescribed a basis 20 per cent higher for single line hauls over the short lines than it prescribed for single line hauls over the standard lines, and on joint haul traffic between points on standard lines and points on short lines, it made the scale 10 per cent higher than the joint line scale for standard lines. That is the basis proposed by the short lines to the Alabama and Georgia Commissions. I will confess, however, that I believe the rates could have been simplified by prescribing the uniform level for both standard lines and short lines, and then taking care of the short lines with arbitraries. I believe that would result in simplifying the rate structure, but we got started the other way on the first commodity, and we just kept it up.

Now, it has been my observation, and I have watched the situation for several years now pretty carefully with respect to short lines, that their chief problem is holding their traffic against the automobile and truck competition, and naturally, with a higher basis of rates than the standard lines operate, and a somewhat poorer service, they are more vulnerable to that sort of competition than the standard lines are. They cannot always afford a high basis of rates to increase their revenue on that account. The conditions vary considerably between the different short lines, and it is quite difficult to prescribe a uniform basis of rates for

them on any commodity, especially on fertilizer. Some of the short lines in Alabama haul very little fertilizer, and others haul a good deal of it, comparatively.

We have also been investigating the accounts and records of these short lines, and we find almost invariably that they are not kept in the form which the Interstate Commerce Commission's regulations prescribed, and I don't think that their reports are accurate at all.

[fol. 845] The Alabama, Tennessee & Northern Railroad operates over in the Western part of the State, and we find that if the accounts of that road were reconstructed on the basis in accordance with the regulations of the Interstate Commerce Commission, and using the tentative valuation which has been announced, it would be making fully 5¾ per cent if not a little above that, and I don't think it is suffering at all, and I do not think it would suffer under the Alabama scale of rates.

Now, the little road down in Southeast Alabama which Mr. Streyer referred to, the Alabama, Florida & Gulf Railroad, I am personally acquainted with, and I know positively that that road's chief difficulty is with automobile and truck competition. It has lost most of its business, and it is situated so that it is very difficult for that road to work out any system of rates that it can operate against that competition. We have advised the officials of the road to come up and discuss the matter with us, and we would help them all we could to work out of their difficulties, and frankly, I do not see any way out without rebuilding part of the road. It is situated so that most of its local business requires a joint haul in connection with the Atlantic Coast Line, and in a roundabout way, and the trucks just play havoc with its business.

I think that the short lines ought to have a higher basis than the standard lines, but I do believe that the basis which the Alabama Commission has prescribed is about as high as they can successfully operate against the competition which they meet. That is my observation. (Tes. 1275-78.)

(Witness excused.)

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"Com. Eastman: Are the carriers prepared to make any announcement with reference to traffic tests?

"Mr. Gwathmey: Why, yes, Mr. Commissioner. I want to say that in accordance with your admonition, that we spend the entire lunch hour, at the expense of any opportunity to get any lunch, discussing this question, and I hope very much indeed that it will not be decided to insist that the carriers simply submit this data this afternoon in its present shape, and without any accompanying explanation. [fol. 846] "I want to make a frank statement of our position about this, especially in view of the fact that it has been suggested here that we are merely trying to quibble.

"The Commissioner will recall that we had all understood that this hearing would run over certainly until Wednesday of next week, and we were told day before yesterday that there was a likelihood that it would wind up today. As soon as we heard about that we got hold of the chairman of the Accounting Committee by telephone and telegraph, and urged him to come here as quickly as possible with these statements.

"Now, it will be recalled that when the statements were first prepared very material errors were found because of the fact that one of the lines had made some mistake in the basis on which it had taken the figures, and the entire thing had to be reworked, and of course that delayed it.

"Now, Mr. McKay, the chairman of the Accounting Committee, has gotten here, and he has this tabulation with him. He tells me that it was compiled on the basis of a questionnaire which he sent out to the accounting officers of all of the different railroads, asking for certain data from each line. Neither the traffic officials nor counsel have had any opportunity to go over those figures or discuss it with the accountant, nor have these officials had any opportunity to discuss with the accounts of their own lines their respective roads, this data.

"Under those circumstances, and realizing as I think we all do, that this matter of the traffic test is a very important thing in this case, I for one, certainly feel a very great hesitation in simply filing here in this record today a compilation which we have not even had a chance to read. We simply glanced at it, and discussed the figures with Mr. McKay, and have had no opportunity to analyze it; and particularly, Mr. Commissioner, we feel that when this statement is presented the carriers should have an opportunity to submit with it certain accompanying testimony.

There are certain features of the matter that we think ought to be explained, and that we ought to be allowed to explain. There are certain further analyses that the accountants have not yet made, that we think the Commission ought to have. I might mention, among other things, this; we want to show what effect upon the revenue results is [fol. 847] in connection with particularly the increases sought by the short line railroads, 50 cents, I believe it is, over the regular scales. We want further an opportunity to analyze this statement to show what the results would be by States; and particularly, and I think this is extremely important, we want an opportunity to show what this analysis would mean in its effect upon the individual railroads.

"Now, those are some of the things that we want to present at some time when we present this statement, and we have not had an opportunity, and are not prepared to do that today; we cannot possibly do it; in fact, there are some additional figures that will have to be worked up, and that cannot be worked up today, so that I very much hope that we will not be expected simply to file this statement without any accompanying testimony, as we would have to do if we filed it this afternoon. Now, as I say, we had expected that during the course of the hearing we would get this here and we would have an opportunity to go over it, and prepare this data certainly by Wednesday of next week, and I will say now, Mr. Commissioner, that if you see fit to hold this hearing over until that time we will undertake to be ready at that time to put in what we have to say. If that cannot be done, why, we want an opportunity to file these figures and at the same time submit our explanations with it. We would like very much to have that." (Tes. 1278-81.)

"Com. Eastman: Following discussion off the record, it is understood that the carriers will be ready to furnish to all parties to the case copies of the traffic test, together with its explanatory statements, such as they may care to make, within 10 days from today. It being understood that they will be at liberty to supplement that with certain additional incidental testimony at the hearing later, and if they are, they are to advise the parties of the essentials of their position by sending copies of the traffic tests and explanatory statements within 10 days from today." (Tes. 1283-84.)

[fol. 848] J. H. Tench was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

I now offer this Exhibit 477.

(The statement was thereupon received in evidence and marked "Protestants' Exhibit No. 477, Witness Tench.")

The Brewster people ship phosphate, ground phosphate rock, and also ship sand to building contractors and for road building purposes; and they also ship sand, as I understand it, for fertilizer filler. That sand is the same sand, ground fine, that is shipped to the fertilizer factories. Unground it is used in concrete construction. The reason that they cannot use the cars that are littered up with all kinds of damage for the loading of this sand for construction or road building purposes, is that the builders require clean sand for concrete work, and would turn it down because it would be necessary to reclean it. So far as that ground sand for the fertilizer factories is concerned, they object to having foreign matter in that; they could not use it without working it over. While this is not cars to ship fertilizer in itself, it does go to the question of the attitude of the railroads with reference to the cleaning of cars. (Tes. 1285-87.)

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C. I. Baird was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

My name is C. I. Baird; I live in Gainesville, Fla. I appear here as witness for the Standard Fertilizer Co., of which company I am an officer. Gainesville is a common point to both the Seaboard and the Atlantic Coast Line, about 70 miles from Jacksonville and about 40 or 50 miles north of Ocala.

We have been having a rate of three-quarters of the regular fertilizer rate on fertilizer materials, and in this proposal from the shippers and railroads, neither one of them mention a continuation and we wanted that. At pres-

[fol. 849] ent we have a rate on fertilizer materials, carloads 30,000 pounds, 75% of the regular fertilizer rate. The rate that we use now, of course, would be larger if that present rate was eliminated. For instance, Rochelle is 95 miles from Jacksonville, and the freight is $2.59, and from Gainesville it is 10 miles, and the freight is $1.47, and combined with our freight in three-quarters of the present fertilizer rate, makes our Rochelle freight $3.16, or 57 cents more now than Jacksonville pays. Rochelle is 10 miles from Gainesville. Then, Ocala, a distance of 41 miles, their difference is 90 cents, Jacksonville over ours. It is 127 miles from Ocala to Jacksonville, and their freight is $2.82, and our mileage is 41, and our freight is $2.03, and our inbound freight $1.69, makes it $3.72 against their $2.82, would be 90 cents difference.

(The statement was thereupon received as "Protestants' Exhibit No. 478, Witness Baird.")

Now, Webster is 180 miles from Jacksonville, and the freight is $3.15, we are 94 miles from Webster, and the freight is $2.59, and into Gainesville $1.69 makes it cost us $4.28 against Jacksonville $3.15, a difference of 113 cents. Lakeland is 212 miles from Jacksonville, freight $3.15, our mileage is 148, and the freight $2.93, and into Gainesville $1.69, making $4.62, a difference of $1.47 cents. Arcadia is 264 miles from Jacksonville, and their freight is $3.27; our mileage is 210 miles and our freight is $3.15, and into Gainesville $1.69, a total of $4.84, and a difference of $1.57. (Tes. 1287-1289.)

Whatever the readjustment is, we wanted to have a material rate of three-fourths of the fertilizer rate where it is shipped in. We have to buy our own materials at the ports. We are handicapped as indicated because of our competition with the factories that have port locations. This difference here, you see, is figured on the present three-fourths of the fertilizer rate, and in fixing this new rate, there is nothing being said about allowing us the material rate for the interior points. We get our acid phosphate from the ports. The freight is just the same; they produce acid phosphate at Port Inglis. It is just the same from there as it is through Jacksonville. That is on [fol. 850] the Gulf. There is no acid chamber at Tampa.

There is no acid chamber in the big phosphate mining district. The nearest to it is Port Inglis.

It is true that practically any interior fertilizer plant in Florida is surrounded by ports. It would be pretty hard on us if this disadvantage under which we are now laboring is increased; that with the difference now it is hard to operate. I would say it would be almost impossible to do business. If the rate on fertilizer material be established, I, as the owner of the plant at Gainesville, would be willing to have a minimum carload weight on that material of 25 tons, or something in that neighborhood. We get fertilizer material in 25-ton carloads. We would be willing for the material rates to be based on 25 tons. (Tes. 1290-92.)

With reference to the question of credits: You take in a local territory like we are, a farmer cannot go to the port and get credit the same as we give it to him, because he is not acquainted there, and a lot of it is a moral credit, and a moral risk; that is you know the man.

It therefore would be, in a sense, an advantage to the small farmer in the interior points to have these plants located at interior points, so situated that he can live and do business at a fair profit.

"By Mr. Burr:

"Q. Now, what have you to say about basing three rates, making a minimum of 25,000 pounds carload on mixed fertilizer; what is your opinion on that?

"A. Ours ought to be 15 on fertilizer."

20 tons for a good many small truck growers would be too much; they would not buy it; it would work a hardship on them. The use of fertilizer in the fruit and vegetable section differs somewhat from the use of fertilizer in the cotton and corn belt in Georgia and Alabama, in that they are buying this fertilizer throughout the year; we sell it 12 months in the year. They put on a number of applications and usually for different crops. The farmer would not buy in the spring all the fertilizer that he expected to use next winter. (Tes. 1292-93.)

[fol. 851] Cross-examination:

I said I was particularly concerned with the rates on the materials and whatever the mileage rate on the fertilizer

may be I want our material 75% of that rate. So far as the level of the rate on fertilizer is concerned, I am not here making any particular protest one way or the other.

I testified that some of the truck farmers could not buy over a 15-ton carload. They buy both ways, jointly and individually. I don't think that several could join together and buy a carload and take the 20-ton minimum car. I would say about 10% of our tonnage would move out by truck or by wagon. The balance would move out by rail. I do not know what the average load per car is. I have a great many 20 tons or more. (Tes. 1293-1295.)

(Witness excused.)

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R. H. HARRISON was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

My name is R. H. Harrison; I am traffic manager of the Chamber of Commerce, Orlando, Florida, and represent the Southern Fertilizer Works at Orlando. I have some exhibits I wish to present at this time.

(The statements were thereupon received in evidence and marked "Protestants' Exhibits Nos. 479, Witness Harrison.")

I have a comparative statement here showing the rates from Jacksonville on manufactured fertilizer to A. C. L. stations, also from Jacksonville to stations on the Wildwood Branch of the Seaboard Air Line. That is from Jacksonville, which branch reaches Orlando. I also have statements showing fertilizer rates from Tampa to stations on Atlantic Coast Line Railroad. This statement shows one instance, Pine Castle, Florida, 151 miles from Jacksonville, that the fertilizer rate from Jacksonville is $3.04. Pine Castle is 4 miles from Orlando. The fertilizer material rate, Jacksonville to Orlando, is $2.20. And, the [fol. 852] fertilizer rate from Orlando to Pine Castle is $1.47. The combined rate into Jacksonville, plus the fertilizer rate out, is $3.67, which gives Jacksonville a present advantage over Orlando of 63 cents. That is the nearest point to Orlando that I have on the statement. The balance

of that is just the same, only different stations, and different mileages; it covers other stations. It goes as far as Fort Myers, which is 310 miles from Jacksonville and 163 miles from Orlando, and that advantage then would run to $2.08 per ton, against Orlando. And, the same is true to stations on the Seaboard Air Line, on the Wildwood Branch. It happens that the rates from Jacksonville to all stations on the Wildwood Branch is the same from Jacksonville. Of course, from Orlando we have a mileage rate, and it works out a difference on the farthest point on the Wildwood Branch, which would be Wildwood itself, and its present advantage over Orlando is $1.52; and to the station on the end of the branch, which would have to pass through Orlando to get to, Oveida, a distance of 16 miles from Orlando, which is the only way to get to Oveida, the advantage is 85 cents, and the manufacturers at Orlando feel that at the present time that it is mighty hard to compete with Jacksonville now, and also with Tampa, and in this hearing, if the fertilizer material rates are wiped out—in other words, I mean, if they are not 75 per cent of the mixed rates, then we won't be able to stay in business. It is mightly hard as it is now, and anything else coming on top of that would make it mighty hard for them. And, I also feel that the fertilizer materials, if they make a lower rate than on the fertilizer, that it would be all right for them to make the minimum on the material probably 20 tons. That they could bring it in all right on that, but on the complete fertilizer I don't think that it should run over 15 tons, because they have the same situation at Orlando that they do at Gainesville. They do not ship out these large cars, and it probably would not be possible that all of their customers would be able to handle these large cars—I mean larger than 15 tons. We get all of our materials from Jacksonville; the majority of the material comes from Jacksonville. They do get some from Tampa. Our distance from Jacksonville is 149 miles by the Coast Line [fol. 853] and to Tampa 94 miles by the Coast Line, which is the short mileage in both cases.

Tampa would be a more favorable market, but it is not always possible to get those materials at Tampa. Tampa is not the port that they have in Jacksonville, I do not think, for the fertilizer materials. Of course, they might have them down there sometimes, but I am quite sure that

that large majority would move from Jacksonville rather than Tampa. As to how many plants there are in the interior now. I do not know whether I can answer that exactly. I know there is one plant in Orlando—and there is a plant in Gainesville, a plant in Lakeland, and there are only three that I actually know of. In Orlando we have Armour & Company, they have a warehouse there. I believe that we have Swift, and we have a branch of the Virginia-Carolina there. They have their warehouses there. They could use those large cars down to Orlando, and put them in their warehouses, you see; they could have it manufactured at the ports where they have their manufacturing done, ship it down to Orlando, and put there in the warehouses, where the small plant could not do that because they have to bring in that material to Orlando. They have not any warehousing in transit privilege. That fertilizer that comes to the warehouses is complete fertilizer for the large companies, but the fertilizer that they would have there would be for the local trade. They would not have it there to reship out of there, because they could ship out cheaper than from Jacksonville, rather than pay that rate down there, and pay the other rate out, when they have this favorable rate from Jacksonville now, compared to the manufacturers in Orlando. It is for the local trade that they have plants there. I should not see any reason why they should have very much shipped from their warehouses there. I think that is true of Armour, the V-C, and Swift. I am quite sure that most of their shipping throughout the State is done from Jacksonville, or wherever they have their plants. That they do not ship down to the warehouse to reship, because that would make the rate too high on them. I do not know of any other State where the practice prevails in charging 25 per cent less on the materials than on the completed fertilizer.

[fol. 854] "Q. Now, in these other States, they do have interior plants, don't they, though?

"A. Why, they do, there in Virginia I know they have plants at Norfolk, on the coast, of course, and at Richmond, I think they have plants there." And in Georgia, but I am not so very familiar with Georgia, but I know in North Carolina they have quite a few interior plants, and they

also have plants on the Coast. They have a plant at Wilmington, the V-C. I can't answer how those interior plants operate without a concession in the material rates. They don't always get their materials from the ports. Now, I know in the State of North Carolina there, the plants there at Winston-Salem, that they use a lot of tobacco stems they get in Winston-Salem there now. That is something that goes into the manufacture of fertilizer. Also they have their acid chamber, I think every one of those fertilizer plants, and in North Carolina or Virginia, that they have their acid chambers there. They make their own acid phosphate, which, of course, is the base for most fertilizer, and I know that they do get those tobacco stems, so that would be one reason why they could operate, whereas, down in Florida they would not be able to operate. Ours is just a mixing plant.

"By Mr. Burr:

"Q. North Carolina has a different rate on fertilizer materials than mixed fertilizer?

"A. I did not know that, Mr. Burr. I probably should have known it, but I did not." (Tes. 1295-1301.)

Cross-examination:

I do not know whether we ship down to Fort Myers or Punta Gorda. I know they do go down as far as Sebring, they go down to Arcadia. Of course, Auburndale and these points south of Orlando on the main line to Tampa, and maybe one or two points there off of the branch at Haynes City, and the Jacksonville Branch. I imagine Jacksonville ships into that territory, too. You can see they could very easily ship it better than we could to those far points. It is mighty hard to get into those far points.

[fol. 855] "Q. Regardless of the difference as much as $1.75 in the Jacksonville rate as compared with your combination in favor of Jacksonville, you are able to ship down into that territory, as I understand your exhibit?

"A. Why, there is not very much of it done down there, because that is too much of a difference on a ton of fertilizer. They might have an occasional shipment down

there." We have to take care of that difference out of our price. You have to shrink it. If we want that business, and go down there, we would have to do it. We ship a good deal into the Lake Wales section; the Southern Fertilizer Works do ship down in there. They don't make very much profit out of that. It has all to come out of their own pockets, of course; it is competitive business with Jacksonville. What we want here is a continuation of the 75 per cent basis on the fertilizer materials, on fertilizer material on intra and interstate; the import rate, of course, might be considered interstate. I am raising a question one way or the other as to the level of the fertilizer rates proper; I feel in Florida now that our rates, I believe they are the highest in the South. I think they are away too high as they are, and that we should have lower rates, and I certainly would raise objections to our present rates; we want lower rates.

"Q. Now, the bulk of your movement is for relatively short hauls, is it now?

"A. Why, some of these points here represent a distance of, we will say, 100 miles."

I have not been over it to see whether the rates which the carriers are proposing will reduce our present rates on the shorter hauls. I had a chance to glance at that scale last week, but I did not have a copy of it, and I wrote for a copy and did not get it by the time I left town. I happened to see a copy that Mr. Tench had. It is a fact that the fertilizer transported by the railroads in Florida and placed in Florida soil results in more long-haul, high-grade tonnage to the railroads than a similar quantity of fertilizer would result in any other point in the South; I don't think there is any point in the South that the railroad gets more revenue from the actual movement than [fol. 856] they do in Florida, and if we have lower rates on fertilizer there, that will mean they will raise more vegetables and raise more citrus fruits, which is mighty good tonnage for the railroads, it pays a good price. I am not much of a fertilizer man when it comes to telling you what kind they use. I am not in the fertilizer business; I am with the Orlando Chamber of Commerce. (Tes. 1302-04.)

W. C. HUTCHINSON was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

My name is W. C. Hutchinson, and I am representing Chase & Company at Sanford, Florida. Chase & Company mix fertilizer at Sanford, Florida; they have their plant at Sanford, Florida. Chase & Company, a corporation organized and existing under the laws of the State of Florida, is engaged in the mixing of fertilizer, in the sale of the product thereof with its plant at Sanford, Florida. Sanford is located on the St. Johns River, 131 miles from Jacksonville over the Atlantic Coast Line Railroad, and is served by the Clyde St. Johns River line in competition with the Atlantic Coast Line Railroad Company, the traffic from Jacksonville. Under the present system of rates Jacksonville shippers can ship fertilizer to the points beyond Sanford cheaper than Sanford shippers can bring the material into their plant at Sanford from Jacksonville, mix the material and ship to the same points. Take, for instance, Winter Park, 148 miles from Jacksonville and 17 miles from Sanford; the rate on complete fertilizer from Jacksonville to Winter Park is $2.93 per ton, any-quantity rate. The rate on fertilizer material to Sanford is $1.61 per ton, minimum weight 30,000 pounds. The rate on complete fertilizer from Sanford to Winter Park is $1.78 per ton, any-quantity rating. The rate of $1.61 on fertilizer material, Jacksonville to Sanford, plus the rate on complete fertilizer, Sanford to Winter Park, will make a total rate of $3.19 per ton against the rate of $2.93 from Jacksonville to Winter Park, giving Jacksonville shippers an advantage of 26 cents per ton.

[fol. 857] I wanted to say Chase & Company handled approximately 15,000 tons of fertilizer materials into their plant at Sanford last year. That is the approximate estimate.

I have an exhibit here, which you have passed around, showing comparison of rates on fertilizer where shipped from Jacksonville direct to stations, shipped to Sanford, manufactured and reshipped to some stations over the Atlantic Coast Line Railroad.

(The statement was thereupon received in evidence, and marked "Protestant's Exhibit No. 480, Witness Hutchinson.")

This exhibit shows the distance from Jacksonville for Beck Hammock, Winter Park, Mount Dora, Kissimmee, Florence Villa and Plant City. These figures of rates are the same as the other exhibits that were handed here before.

I am not satisfied with the minimum of 20 tons of fertilizer. I think the 20-ton minimum is too high for Florida, and I think a 30,000-pound minimum would be satisfactory on complete fertilizer, 15 tons, and on materials 20 tons would be satisfactory. The minimum weight on complete mixed fertilizer is 15 tons, and that would be satisfactory. At present there is not any minimum; it is any-quantity rating at present. Materials move only in carloads, 30,000 pounds. I am asking that 75 per cent. of the fertilizer rate be continued. I am not asking for that any-quantity rates on complete fertilizer. (Tes. 1305-8.)

Cross-examination:

Chase & Company are very large handlers of citrus fruits. Chase & Company do not buy the oranges from the growers; they only handle oranges on commission. In some instances they may buy oranges; I am not sure of that. I spoke of Chase & Company producing 15,000 tons of fertilizer. They supply fertilizer to the growers with whom they deal; some of their growers, and they sell fertilizer to men with whom they have no dealings whatever, so far as handling vegetables and citrus fruits are concerned. (Tes. 1308.)

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[fol. 858] Hugo Ignatius was thereupon called as a witness and, having been first duly sworn, testified as follows:

Direct examination:

My name is Hugo Ignatius; I am assistant traffic manager of the Buckeye Cotton Oil Company, offices at Cincinnati, Ohio. I make my statements in behalf of the Interstate Cottonseed Crushers Association, of which I am

chairman of the traffic committee. I also appear in behalf of the individual State Associations or crushers.

This question of cottonseed meal as a fertilizer was gone into quite fully at the time of the Consolidated Classification proceedings, and as was indicated at that time, cottonseed meal has been accorded a berth in the fertilizer list since 1889, approximately 36 years or more. The authority of the first publication was Supplement 4 to Southern Railway and Steamship Association, Circular No. 5 Series 1888 and 1889, effective April 2nd, 1889. It is in connection with this article and its classification in the Southeast that I wish to direct by statement. I will not offer much testimony, but do endorse what was placed in the record by the witnesses for the National Fertilizer Association, and of the Alabama Railroad Commission.

Cottonseed meal has three general markets; the fertilizer market, feed market and export. The demand for cottonseed meal as fertilizer is predominant in the Southeast, and in the New England Territory. The conditions in the Southeast are well known, and the use of meal as a fertilizer in New England Territory is in connection with the growth of onions and tobacco. I have one exhibit which I wish to offer and submit at this time.

(The statement was thereupon received in evidence and marked "Protestants' Exhibit No. 481, Witness Ignatius.")

I offer this exhibit simply to put in concise form some statistics regarding the production of cottonseed meal as shown in the American Fertilizer Handbook. I also indicate for convenience the amount of meal that was exported according to this authority. It will be noted that the production of meal in the Southwest surpasses the pro-
[fol. 859] duction of meal in the Southeast, although the tonnage in each respective territory is very considerable. It has been testified previously that there is comparatively little tonnage of all of the fertilizer materials used in the Southwest, consequently, the use of meal must also be relatively small. It is generally known that the cottonseed meal produced in the Southwest is marketed chiefly to the feed trade, both in the Southwest and in the Northwest. Some amount of the cottonseed meal produced in the

Southwest is also shipped to Official Classification Territory, because the demand is not sufficient in the West to absorb the total production. I cite this to indicate that there is no opportunity for any of the cottonseed meal produced in the Southeast to find any outlet West of the River. The cottonseed meal which is shipped into Official Classification Territory, with the exception of that tonnage used in the New England Territory for fertilizer purposes, is generally used in the manufacture of mixed feeds. I might state that the demand for cottonseed meal in the Southeast does not offset the necessity to ship a certain portion of this tonnage to Official Classification points in competition with the various grain products grown in the North and used also in the manufacture of feeds. The export market is rather an indefinite factor. During the period just after the war, the Central European powers and the United Kingdom produced a lot of vegetable cake or meal of their own. At this time they are regaining their former position in the oil-bearing products, and will supply practically all of the requirements that they will have for this particular product. This condition existed previous to the War, so that any export of meal was generally considered a distress feature. In other words, it was forcing the disposition of meal produced here to such markets as would absorb it.

The cottonseed cake is a product as taken from the presses after the oil has been extracted from the meal. This is allowed to cool and harden, and is ground into meal. There may have been some shipments of cake that were taken on by fertilizer companies and ground, I am not so sure about that. Cake is not used in that form, it has to be ground before it can be used for any purpose. In the Southeast the predominant use of meal is fertilizer. [fol. 860] As I testified, in the Southwest the predominant use of meal is for feed, because there is no fertilizer market. Any fertilizer shipped into the North is generally absorbed by the feed markets, except for that particular section in New England, which takes in a good deal of the meal which is used on the farms for onions and tobacco. It varies in the seasons, as to whether the bulk of the cottonseed meal goes into fertilizer, or is used for feed. That use of any ingredients in the manufacture of an article, which is open to the use of many kinds of ingredients, will vary. Mar-

ket conditions do fluctuate on that. I think possibly it is correct to say that in the last year there has been a deflation, so far as fertilizer companies' use of meal is concerned. This year it is freely estimated that the fertilizer trade will absorb a great deal of meal. The large production of meal in the South will encourage its use more freely for fertilizer, this being the second year of a good crop, will replace a good deal of the tonnage in the market, and necessarily will place it within the scope of the fertilizer industry.

I do wish to say, so far as export is concerned, that is usually directed from the Gulf and South Atlantic Ports. I simply wanted to give that résumé of the general movement of the meal in the whole territory in which it was produced, and also the character of its market, which absorbs the meal. My conclusion is that so far as the Southeast is concerned, within the territory embodied by this complaint, the excepted classification of cottonseed meal should continue to be as fertilizer, as it has been during the past 36 years.

That is all I have to offer.

The price of cottonseed meal, right now, is fluctuating. I think the opening price of meal this year was about $35.00 or $36.00 a ton. That is new meal. Now, the mills are beginning to operate, and in less than a month there will be a large difference, because there will be a great deal of meal on the market. I would say in the meal season, after the mills have been operating for a month or six weeks, the price would fluctuate lower, to $30.00 or less basis. Of course I am giving my opinion; I am not in the selling game. (Tes. 1309-1314.)

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[fol. 861] D. A. DASHIELL was called as a witness in behalf of the protestants and, having been previously sworn, testified as follows:

Direct examination:

This exhibit shows the average transportation assembly and distribution costs at Montgomery, Ala., showing the experience of the Capitol Fertilizer Company. The pre-

vious exhibit which dealt with this same subject was Exhibit No. 324, introduced by Witness Bates. This information was requested by counsel for the Louisville & Nashville Railroad.

(The document referred to was then marked "Shippers' Exhibit No. 324-A, Witness Dashiell.")

Another sheet showing the experience of the Virginia-Carolina Chemical Company at Wilmington, N. C., is now offered.

(The document referred to was received in evidence and marked "Shippers' Exhibit No. 324-B, Witness Dashiell.")

Here is another sheet showing the experience of the Armour Fertilizer Works at Nashville, Tenn. In connection with this exhibit I would like to say that this exhibit is prepared by me from information furnished by Armour Fertilizer Works.

(The document referred to was received in evidence and marked "Shippers' Exhibit No. 324-C, Witness Dashiell.") (Tes. 1319-1321.)

(Witness excused.)

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J. A. STRAYER was called as a witness and, having been previously sworn, testified as follows:

My name is J. A. Strayer; Traffic Manager, American Short Line Railroad Association. At the Montgomery hearing I introduced certain evidence, and also Exhibit No. 285, which was a statement of financial and tonnage statistics of the short lines. I have an exhibit here of 64 pages covering the individual short lines and general facts about them which I would like to file at this time.

[fol. 862] (The document referred to was received in evidence and marked "Strayer Exhibit No. 482.")

That does not include the statement with reference to the Alabama, Tennessee & Northern. It is not in here. You will remember they had an exhibit of their own. (Tes. 1324-25.)

E. R. GARDNER was recalled as a witness in behalf of the respondents and, having been previously sworn, testified as follows:

Direct examination:

I have been sworn previously as a witness in this case. The testimony which I will now offer deals entirely with the 4th section relief desired by the carriers in connection with its rates on fertilizer in southern territory.

With the order issued by the Commission directing a general investigation of the fertilizer rates in the Southern terriotry, there was also set for hearing certain unheard fourth section applications filed with the Commission in 1911, which protected the carriers with respect to departures from the fourth section of the interstate commerce act.

In this proceeding we are not asking the Commission for authority to continue the fourth section departures reflected in the present adjustment, but are seeking certain fourth section relief which would permit the carriers to make effective the proposed adjustment which has been explained. Until such a time as the proposed adjustment is made effective, the carriers request that the present relief which they are now operating under be not taken away from them.

In connection with the proposed adjustment, the fourth section relief required and requested by the carriers in order to put that adjustment in effect may be divided into approximately four general classes:

First, the maximum amount of relief permitted under the fourth section of the act as amended, which provides in substance that the Commission may grant authority to the circuitous line or route to meet the rate of the direct line or route between competitive points, provided the rate [fol. 863] from, to or between points on the circuitous route as to which the hauls are not longer than from and to the competitive point, do not exceed the latter.

Second, maximum, relief under the circuity rule from the pivotal point in the Ohio and Mississippi River and Gulf ports adjustment with additional authority based on special circumstances to apply the pivotal point rate to other points within the groups, provided the pivotal point rate is not exceeded at intermediate points on the direct line.

Third, authority for a joint line route to meet the rates between competitive points fixed by the single line route without observing the competitive rates as maximum at intermediate points, provided that the rates to intermediate points on the route of the joint line does not exceed the joint line scale, and, further, does not exceed the lowest combination;

Fourth, authority to apply to or from common points in connection with the short lines, or relief lines (heretofore recognized by the Commission as such and as entitled to special consideration) the competitive rates made by the trunk lines without observing the same as maximum at intermediate local points on the short, or relief, line, provided combination is not exceeded.

The relief sought in the first general class is the same as that which has heretofore been granted carriers making similar revision of rates on mileage, or distance, basis; for example in Livestock to, From and Between Points in the Southeast, 74 I. C. C. 419, where rates were established predicated on a mileage scale, the Commission granted fourth section relief to the circuitous lines, or routes, between competitive points to enable them to meet, at the competitive point, the rates contemporaneously in effect on like traffic via the direct line, and to maintain higher rates at intermediate points on such circuitous route, except that the authority granted did not include intermediate points as to which the haul of the circuitous line, or route, was longer than that of the direct line, or route, between competitive points. Similar relief was granted the carriers in connection with the Memphis Southwestern Investigation, 80 I. C. C. 157; Brick & Clay Products in the Southeast, L. & S. 1885, 88 I. C. C. 543; North Carolina Pine Association, 85 I. C. C. 270, and many other cases.

[fol. 864] This class of relief, as indicated, is based on circuity and carriers with it the observance of the equidistant rule of the Fourth Section.

The second general class of relief sought is based on two grounds: first, that of circuity where the mileage scale is applied via the direct line from the pivotal point in the group, and, second, on special and unusual circumstances brought about by the maintenance of origin group adjustment, that is to say, it is proposed to continue the Ohio River original adjustment; for example, from the Cincin-

nati, Ohio, and Louisville, Ky., group to points in the Carolina territory the rates will be measured by applying the distance from the keypoint of Louisville, Ky., and the rates so arrived at applied from Cincinnati, Ohio, and other points in the Cincinnati-Louisville group. The rates from Evansville, Ind., and Cairo, Ill., and points within the Evansville-Cairo group will be made with relation to the rates from the Cincinnati-Louisville group. In order to maintain a group adjustment of this character, fourth section relief other than that based on circuity is obviously necessary. Group adjustments are maintained on various commodities and the authority which we seek in connection with the proposed fertilizer adjustment is no different from that relief which the Commission granted in I. & S. 1885, Brick & Clay Products in the Southeast, based on special circumstances brought about by the necessity or desire to maintain group adjustments.

In order to preserve the grouping adjustment which is contemplated from the Ohio and Mississippi crossings, the carriers are seeking the maximum relief under the circuity rule from the pivotal point in the Ohio and Mississippi River and Gulf ports group, with additional authority, as I have explained, based on special circumstances to apply the pivotal point rate from other points within the group, provided the pivotal point rate is not exceeded at intermediate points on the direct line.

The third general class of relief is similar to that which the Commission has heretofore granted the carriers operating in the Western territory under the Memphis-Southwestern Investigation, 77 I. C. C. 522-23, as well as in Class Rates Between Missouri and Interstate Points, 100 I. C. C. [fol. 865] 274, and in Fourth Section Application No. 12567, Vinegar to Texas Points, 98 I. C. C. 688.

It is proposed, in connection with the fertilizer revision, to apply for joint-line hauls rates made differentially higher than the rates for similar distances under a single-line haul, or, in other words, under the proposed adjustment the charge for a two-line haul would be higher than a charge for a single-line haul, although the distances may be the same in both cases. If it is proper to apply for joint-line hauls rates differentially higher than those for single-line hauls where the fourth section is not involved, obviously it is equally proper to charge the same differentials where

fourth section relief is necessary to meet the rate of a competing single-line route. The Commission has, in numerous cases, approved joint-haul rates higher than single-line rates and both the carriers and shippers propose such an adjustment in connection with the fertilizer rates. I mean they proposed such an adjustment in the fertilizer case.

Under the circumstances, the carriers are here seeking relief so as to permit a joint-line route to meet the rates fixed by a single-line route between competitive points and not to observe those rates at intermediate points and disregarding the equidistant provisions of the fourth section, but in no case to exceed the joint-haul rates at such intermediate points, or rates higher than combination. If such relief is not granted, it would prevent the carriers forming the joint-line route from securing the benefit of the joint-line scale at points intermediate to the competitive point.

In the Memphis-Southwestern case, the Commission held that the application of the equidistant provisions was not mandatory in a situation of this character and granted relief to the Western Carriers forming the joint-line route to meet the rate fixed by a single-line carrier between competitive points without observing that rate at intermediate points on the route of the joint-line carrier, provided the joint-line scale was not exceeded at intermediate points. We are seeking similar relief as to our fertilizer adjustment, which contemplates the application of the joint-line mileage scale on fertilizer in the Southern territory higher than the single-line. (Tr. 1327-1333.)

[fol. 866] I have prepared certain exhibits for the purpose of illustrating the character of the relief sought by the carriers in this proceeding with respect to the fourth section.

(The document referred to was received in evidence and marked "Respondents' Exhibit No. 483, witness Gardner.")

Pages 1 to 15 of this exhibit—and, incidentally, the pages are not numbered; I intended to file them as separate exhibits—pertain to circuity, strictly circuity. Page 15 covers the situation from Norfolk, Va., to Garysburg, N. C. These exhibits are compiled in line with the information called for in Fourth Section Order No. 8900. They show first, the direct route, then the routes between the points involved, and just below that is the first intermediate point

via the circuitous route at which relief is sought for account of all the lines that seek relief via the various routes; then the highest rated intermediate points via the circuitous route at which relief is sought; then the furthest distant intermediate point via the circuitous route at which relief is sought, and the percentage of circuity, present and proposed rates, revenue under proposed rate, mills per ton mile, revenue per car mile and revenue per car. I think that is Garysburg. Page 15. The exhibit shows Garysburg. We are not proposing any limitation on circuitous routes. We think that no limitation whatsoever should be placed on these rates and that should be left to the carrier to work out. No carrier is going to engage in the handling of traffic that is unremunerative. We request the Commission not to place any percentage of circuity in connection with the fourth section relief which they grant us. We would like to have open relief, the same as was granted in Docket 13494. That is bound to leave some of the routes open unless routing is shown. Now, it is a very difficult proposition to indicate the routing in the tariff to cover the routes that will actually handle the business. You will recall we had that same question up in connection with the brick adjustment I. & S. 1885, wherein the Commission in granting the carriers fourth section relief placed percentage circuit on it, and we found it impracticable to work it, and that the inserting of routes in the tariff would have the portion of the tariff carrying the routing several [fol. 867] times the size of the tariff actually carrying the rates. It is practically impossible to do it. And we are now, in connection with I. & S. 1885, before the Commission asking them to eliminate that portion of the fourth section authority which does actually place the percentage limitation on us. It is impossible to work out.

I have evidence indicating that the rates in question will be reasonably compensatory over their circuitous routes covered by your fourth section application. These exhibits go to show that, I think. That was the purpose of them. They were gotten up along the lines called for in fourth section order 8900 to show that very feature.

As I stated, pages 1 to 15 of that exhibit pertain to the matter of circuity. Pages 16 to 22 cover the illustration from Birmingham, Ala., to Atlanta, Ga. Those exhibits

pertain to the matter of circuity first, then the joint line meeting the single line rate. For example, page 16 covers the illustration from Savannah, Ga., to Atlanta, Ga. The direct route of the Southern Railway makes the rate and the joint line route shown on that exhibit wishes to meet the rates at competitive points fixed by the single line route.

Page 18 covers the situation from Savannah to Sumpter. These points which I have taken are only trying to illustrate the situation.

The Southern Railway direct line fixes the rate between Savannah and Sumpter notwithstanding the joint line route here of the Seaboard and Coast Line makes a lower mileage.

Route 3 is the Atlantic Coast Line direct. Route 4 is the Seaboard direct. Those circuitous lines wish to meet the direct rate of the Southern Railway, and the joint line wishes to meet the rate of the Southern Railway and apply the higher joint line scale at the intermediate points.

That is also shown on pages 19, 20 and 21.

Pages 23 and 24 deal with the situation where the single line makes the rate and the joint line wishes to meet it without observing the competitive rates at intermediate points, applying the joint line scale at their intermediate local points.

Fourth Section 8900 calls for five copies of the map showing the routing between the competitive points. There are [fol. 868] so many routes to so many competitive points that I have taken a junction point map of the southeast and have filed that as page 25 of my exhibit. (Tes. 1333-37.)

Our application does not show cases where we are seeking relief merely in order to maintain group adjustment. I failed to make any copies of this or any illustrations of those situations. It was so comprehensive I did not think it was necessary. We have the fourth section in connection with the grouping in the brick case, which was along the same line as the fertilizer, and we took Louisville, Ky., as the pivotal point in the Ohio River group to the Carolinas, and measured the rate from the Louisville distance and applied it from Cincinnati and other points in the group. Under that basis the Commission did give us fourth section relief based upon special circumstances and conditions to maintain that adjustment, that origin group adjustment.

So the relief sought in connection with the fertilizer rates is similar to that which has already been granted by the Commission in I. & S. 1885. (Tes. 1337-1338.)

(Witness excused.)

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GUS RICHMOND, was thereupon called as a witness in behalf of the respondents and, having been first duly sworn, testified as follows:

Direct examination:

My name is Gus Richmond. I am Commerce Agent and Chief Clerk in the General Freight Office of the Atlanta, Birmingham & Atlantic Railway.

The Atlanta, Birmingham & Atlantic Railway extends from Brunswick, Ga., on the South Atlantic Coast in a northwesterly direction to Atlanta and Birmingham, with branches running down to Thomasville and Waycross, Ga., comprising about 640 miles of road. The road is operated under a receiver at the present time, and has been since February, 1921.

Mr. Gardner has testified on behalf of the carriers as a whole, including the Atlanta, Birmingham & Atlantic, with respect to the present adjustment and the proposed adjustment, particularly the reasonableness and justification [fol. 869] of the latter; also as to the class of 4th section relief desired by the carriers as a whole or by classes. It is the present purpose of the Atlanta, Birmingham & Atlantic to apply the same level of rates as the other standard lines in the southeast, although later we may find it expedient to make our rate somewhat higher than over the other standard lines. There are many circumstances which would justify our doing so. Heretofore the Atlanta, Birmingham & Atlantic has given considerable thought to the policy of carrying higher rates than the other trunk line carriers with whom it competes, such as the Atlantic Coast Line, the Central of Georgia, the G. S. & F., Seaboard Air Line, Southern, etc., but due to the fact that much of the line closely parallels some of the other lines and it is intersected so frequently by the other lines it has been feared that a higher level of rates might divert traffic

from it to the other carriers and retard its local development. We look to the agricultural and industrial development of our local territory as our best hope of success. Even in the original proceedings in Docket No. 13494 the Atlantic, Birmingham & Atlantic proposed the same level of class rates as the other carriers but the Commission's tentative report proposing substantially lower rates than ordinarily proposed by the carriers and classifying certain of the carriers as "weak lines" and entitled to a higher level of rates seemed to warrant our asking for similar treatment in the matter of class rates. The Atlanta, Birmingham & Atlantic's exceptions to the proposed report in Docket No. 13494 gives these reasons more in detail.

Would it be permissible to stipulate into the record here the Atlanta, Birmingham & Atlantic's exceptions in the Class Rate Case, Docket No. 13494?

"Commissioner Eastman: Under the rule you would have to have copies to introduce as an exhibit."

The Commission granted our petition and left us free to establish such class rates as may be expedient. We would like to ask the Commission to leave the Atlanta, Birmingham & Atlantic similarly free in the case of fertilizer rates. Later we may be able to apply rates somewhat higher than the other lines, but in some cases, I am quite sure, it will [fol. 870] not be practicable to carry commodity rates higher than those of the other trunk line carriers else our object of developing our local territory will fail. This question of relative rate levels is of particular importance on commodities produced or consumed in the rural districts where other railroads are accessible at but slightly greater expense than is the Atlanta, Birmingham & Atlantic; such as outbound shipments of lumber, fruits, vegetables, melons, etc., and inbound shipments of fertilizer, road-building materials, etc.

Although, as stated, it is our present purpose to apply the same level of rates for single line and joint line hauls as the other standard lines, we ask the Commission to grant wide open Fourth Section relief such as is sought by the other "weak lines" and short lines who are proposing higher rates. In other words, we do not want the lim-

itations placed on the relief that presumably will be placed upon the stronger lines.

We believe that our situation will fully justify the granting of this relief. As to the Fourth Section relief sought under which to establish and maintain certain group relationships from the Ohio and Mississippi River Crossings, Gulf and South Atlantic Ports, I do not think it necessary for the Atlanta Birmingham & Atlantic to make any individual showing, but the evidence introduced by the other witnesses with respect to the general justification for such relief may be adopted and relied upon by the Atlanta, Birmingham & Atlantic. The other standard lines, I believe, are asking for Fourth Section relief via circuitous routes, that is, they propose to meet rates made via the short routes between competitive points and apply higher rates at intermediate points on circuitous routes as to which the distance is not greater than the distance via the short routes between the competitive points.

The other standard lines are also asking for 4th section relief to permit the application of joint line mileage rates which are higher than single line mileage rates for equal distances. The Atlanta, Birmingham & Atlantic, of course, desires similar relief. (Tes. 1339-1342.)

Really what we mean by the circuitous routes which are not longer than the short routes is that if we establish the [fol. 871] same level of rates as the other trunk lines there would probably be no case where our rates for equal or shorter distance on the circuitous route would be higher than via the short route, but there may be such cases, especially in the case of joint line rates there would be such, and in case we make our rates higher than the other lines there would naturally be cases where for an equal or shorter distance on the circuitous route our rate would be higher; and we want the privilege of carrying it. In other words, we want the Commission here to dispose of the carriers' fourth section relief, in so far as it affects fertilizer, and we would want to get such a Fourth Section order as would enable us to take care of our fertilizer rates hereafter without having to come back and go through the formality of an additional Fourth Section case, if you wanted to apply rates higher than the general level.

I have prepared some exhibits, one of which contains illustrations of 4th section departures via the route of the

Atlanta, Birmingham & Atlantic, and the others deal generally with the reasons why we think the Atlanta, Birmingham & Atlantic should be given full relief, and that is a financial showing and showing of operating conditions. I would like to present those exhibits, as long as I have prepared them.

(The documents so offered and identified were received in evidence, marked "Carriers' Exhibit 484 to 491, inclusive, witness Richmond.")

Exhibit No. 484 is a map of the Atlantic, Birmingham & Atlantic.

Exhibit No. 485 is a statement containing illustrations of the 4th section departures via the route of the Atlanta, Birmingham & Atlantic. It will be observed from Exhibit 485 from Atlanta to Talladega, the short line, the Southern Railway is 127 miles, and the route of the Atlanta, Birmingham & Atlantic is 200 miles, or 157.5 per cent of the short line distance. The mileage scale for 127 miles is $2.70, which rate the Atlanta, Birmingham & Atlantic desires to meet. The single line mileage scale for 200 miles, however, is $3.38, or only 125.2% of the mileage scale for 127 miles. [fol. 872] Page 1 of the same exhibit shows from Atlanta to Birmingham the short line distance via the Seaboard or Southern is 166 miles, scale $3.15. That is the proposed scale. Via the Atlanta, Birmingham & Atlantic the distance is 275 miles, or 165.7 per cent of the short line distance. The single line scale for 275 miles produces a rate of $3.94, or only 25.1 per cent greater than the scale via the short route. Traffic between Atlanta and Birmingham is very important to the Atlanta, Birmingham & Atlantic as these two points are by far the most important industrial points or districts reached by the Atlanta, Birmingham & Atlantic. I will deal more particularly with this situation later.

The illustration of Birmingham to Columbus, Ga., on page 3 of this exhibit shows that via the Atlanta, Birmingham & Atlantic, Cordele, Ga., and Seaboard as compared with the short route of the Central of Georgia, is an extreme case of circuity. However, while the distance via Cordele is 147.7 per cent greater than the distance via the Central of Georgia direct, the joint line mileage scale via

Cordele would be $5.07, or a little less than 61 per cent greater than the scale via the short route.

The route from Birmingham to Columbus via the Atlanta, Birmingham & Atlantic, Cordele and Seaboard, is a well-established one and is used occasionally for traffic considered profitable by this route.

I might say here that the Atlanta, Birmingham & Atlantic has to watch its earnings closely, and our soliciting forces are furnished statements of revenue that they receive on the different classes of traffic and guard against handling, as far as practicable, traffic that is not considered profitable.

The proposed rate of $3.15 will yield 8.1 mills per ton mile via this route and 22.4 cents per car mile based upon average loading of 50,000 pounds, which was the average loading of all carload shipments of fertilizers handled by the Atlanta, Birmingham & Atlantic in 1923. This car mile revenue is more than our average cost of handling all carload traffic and is believed to be profitable.

On page 2 of this exhibit is shown the proposed rate from Macon, Ga., to Roanoke, Ala. The single line distance of the Central of Georgia, 167 miles, makes the rate $3.15. [fol. 873] The short route via the Southern Railway, Warner Springs and the Atlanta, Birmingham & Atlantic is 164 miles. That is a case where relief by joint haul route against single line longer route is desired.

My next exhibit, No. 486, average freight revenue per ton mile received by the Atlanta, Birmingham & Atlantic on fertilizer and other heavy moving commodities during the calendar year 1924. On all commodities, both carload and less than carload, the average ton mile revenue was 11.1 mills per ton mile, and this supports the presumption that the proposed rates between competitive points are reasonably compensatory when applied via the circuitous routes of the Atlanta, Birmingham & Atlantic as given in the illustrations in my first exhibit.

My Exhibit No. 487 is a statement of carloads forwarded from Atlanta, Ga., Birmingham, Bessemer and Woodward, Ala., via Atlanta, Birmingham & Atlantic during March, 1925. The statement shows the number of trains each day, the number of cars from Atlanta proper to Bessemer, Birmingham and Woodward proper and to points beyond via Birmingham, and the total number of cars from Atlanta

proper for all points via all routes; also similar information with respect to shipments originating beyond and moving via Atlanta.

On page 2 of the exhibit is shown the carloads moving in the reverse direction. The statement also shows the importance to the Atlanta, Birmingham & Atlantic of traffic moving between Atlanta proper and Bessemer, Birmingham and Woodward proper, which points are reached by the Atlanta, Birmingham & Atlantic, as well as of traffic moving to or from points beyond Atlanta and Birmingham.

This statement shows that 4.9 per cent of the carloads forwarded from Atlanta via the A. B. & A. were moving to or via the Birmingham group, and 19.5 per cent of the carloads forwarded from Birmingham, Bessemer and Woodward via the A. B. & A. were destined to Atlanta or points beyond via Atlanta.

By further calculation it will be found that of the total of 2,640 cars forwarded from Atlanta and Birmingham via the A. B. & A. during March, 1925, 329, or 12.5 per cent, were moving between Atlanta and Birmingham or from or to the points beyond via those points.

[fol. 874] This statement also shows that the average number of loaded cars per train from Atlanta was 15 and from Birmingham 14. This does not take into account empty cars handled in the same trains or additional cars picked up en route and therefore does not represent the total number of cars per train handled. It does indicate, however, that the train run relatively light.

My next exhibit No. 488 is a comparison of revenue traffic density on A. B. & A. with a group of other Southern carriers with which it competes. It is less on the A. B. & A. than any other of the carriers in the group except the G. & F., which is classed with the short lines and is generally given full relief from the long and short haul provisions of the Fourth Section.

I understand these figures are for the entire system in each case. I am quite sure that is correct.

My next exhibit, No. 489, is a comparison of operating statistics of the A. B. & A. with the same group of Southern carriers. This shows that for the years 1923 and 1924 the average number of freight cars per train, the gross tons per train and the net tons per train were less on the A. B.

& A. than any of the other carriers in the group except the Georgia & Florida. This is due to light traffic on the A. B. & A. and the necessity of maintaining dependable service by observing fixed schedules whether trains have full tonnage or not. Additional traffic could be handled in the same number of trains without any appreciable increase in the operating costs. The statement shows that the average loading per car on the A. B. & A. is better than the average of the group as a whole or with the A. B. & A. and G. & F. excluded, which further emphasizes that the light tonnage per train is due to fewer number of cars instead of light loading of cars.

My next exhibit, No. 490, is a comparison of selected expense accounts per freight train mile and gross ton mile of A. B. & A. with 8 other Southern roads for the year 1924. This group of roads is not the same as in the previous exhibits for the reason that it was taken from statement prepared by the Bureau of Railway Economics for our Receiver for other purposes and we did not have the corresponding figures for the other roads in the group embraced in the other exhibits. (Tes. 1342-1350.)

[fol. 875] This statement shows that the operating costs per freight train mile is less than any of the other roads listed. This indicates that the A. B. & A. can handle trains at less cost per mile than can the other roads and our average costs of handling trains from Birmingham to Atlanta for example would not be 65.7 per cent greater than the cost of the Seaboard or Southern Railway. Our cost per gross ton mile is less than the average but is somewhat greater than some of the other roads referred to due to the fact that our average number of cars per train is less than on the other roads.

These comparisons simply go to show the efficiency with which the A. B. & A. is operated.

My next exhibit, No. 491, shows the A. B. & A.'s operating revenue and income years 1921 to 1924, inclusive, and indicates the gradual improvement of conditions on the A. B. & A. but shows that it is still very much in need of increased traffic. The statements show an increase in freight revenue. The passenger revenue for 1924 was less than 1923, due to competition with motor vehicles. This is also felt in freight service but not with the same relative

result. While the total operating revenues show a constant increase, operating expenses show a decrease. This is particularly true of transportation expenses and maintenance of equipment. While the statement shows we had only $45,669 for funded debt which amounted to $290,570, this was better than in any previous year since 1917. I understand that a special debit of approximately $200,000 was made in December, 1924, on account of some readjustment necessary in the guaranty period account of 1920 and except for this we would have practically met all fixed charges for 1924. Conditions are gradually improving and efforts in this direction are being continued in 1925.

The A. B. & A. serves an important territory and a considerable population dependent upon it for transportation, and we feel that it should be permitted to continue to handle business via its circuitous routes in competition with the more direct and particularly with the financially stronger railroads. We feel that special consideration should be given to its financial condition and need of increased traffic, and the public interest justifying its continued operation. Such conditions have been duly recognized by the Commission in the case of the many short and [fol. 876] financially weak carriers in Southern territory in F. S. C. No. 7026 and in the Commission's decision in Docket 13494, and we are hopeful that A. B. & A. Ry. will be given such consideration and treatment in the fertilizer adjustment. (Tes. 1350-1352.)

(Witness excused.)

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C. B. DUGAN was called as a witness in behalf of the respondents and, having been first duly sworn, testified as follows:

Direct examination:

Name, C. B. Dugan, Superintendent of Transportation, Norfolk Southern Railroad, Norfolk, Va. I have been engaged in the transportation work about 25 years. I have been connected with the Norfolk Southern Railroad 20 years. In my official duties with the Norfolk Southern Railroad I have charge of car distribution and the move-

ment of freight traffic. It has been my experience that equipment once loaded with fertilizer when made available for reloading contains odors of materials of such a nature as to cause contamination of other freight. Speaking about the inspection on the Norfolk Southern Railroad where freight is loaded by the Norfolk Southern: When we load or transfer freight the cars are inspected to determine their condition for the freight to be loaded therein. If the cars are found to contain an odor from fertilizer or anything else that is able to contaminate freight, the cars are thrown out and other cars substituted. The cars are swept out and lined with paper. During the fertilizer season we find it necessary to replace equipment that has been initially placed at our piers or warehouses for loading freight because of this odor, right frequently.

As to the practice with respect to the inspection of equipment where it is placed on a private siding for the loading of freight by the shipper: Well, knowing, as a rule, the commodities that the shipper loads, suitable equipment is furnished, but we are not always in a position to say as to the odors that the car may contain. Very often the car is [fol. 877] released on a line of road where inspection is not possible. (Tes. 1352-1354.)

If a car were placed on a private siding and a shipper detected the odor of fertilizer, we are called upon in such cases to remove that equipment and place new equipment for loading.

Tobacco shippers will not load a car that they know has had fertilizer in it, whether they detect an odor or not; I presume on account of the possibility of contamination.

In the handling of fertilizer traffic I have had two very serious recent cases where this contamination arising from odor has damaged other freight. One was a carload of sugar that we transported from Norfolk, Va., to Greensboro, N. C., via Gulf, N. C. The sugar was in the car approximately three days. The car was passed, swept and lined with paper. Upon arrival at Greensboro the sugar was declined on account of an odor, which was very plain, and due principally to the car having been caught in a warm rain between Raleigh and Greensboro, which brought out the odor in the wood. We had that sugar placed in a warehouse and held there for 30 days and endeavored to free it from the odor. We were not successful, and we returned

the sugar to Philadelphia to the refinery and had it reworked, at an expense, less the haul, of approximately $1,400 in claims.

The other case was where a car came to us last month loaded with oats. It was loaded on a connection at Norfolk. On arrival at Wilson the car was in our possession 24 hours when it was placed on the private siding for unloading, and the entire lower tier of oats was contaminated with the fertilizer odor, and some of the sacks and paper lining were eaten through. We paid $112 in that case. I know of a case where the communities, particularly those in North Carolina, have passed regulations attempting to prohibit the movement of fertilizer or fertilizer materials through such communities. We had a very sorry experience with that about four or five years ago. I think all the lines coming through North Carolina had the same. There are ordinances at Charlotte, Wilson and Raleigh.

The kind of materials that I had reference to were green fish scrap. I was not attempting to say that applied to [fol. 878] complete fertilizer, or any other material except green fish scrap. I do not believe there is anything that is quite as rank as that stuff. That is what I had in mind on this particular ordinance.

I have examined a car that contained green fish scrap; there is plenty of dripping from it, and that is the main cause of trouble.

I am familiar with our classification, the Southern Classification. As to whether that probihits the shipping of fish scrap in green state, I believe that change came about after this trouble. At that time the Classification did not prevent it, I am quite certain. It was possibly four years ago. As a matter of fact, we took the car into Charlotte, N. C., and the city authorities would like to have put everybody in jail. That was green fish scrap.

We had handled several cars right there in a short space of time, but it created such a furore along the line that we had to embargo it. There is really no comparison of the volume of green fish scrap and the fertilizer movement.

It is not now being transported at all because we will not accept it.

We embargoed it at the time we were threatened with arrest. That has nothing at all to do with the movement of other fertilizer materials. (Tes. 1354-1358.)

Those two cases to which I referred of the sugar and oats: The cars were not previously loaded with green fish scrap. The only reference I had when I stated the classification was changed was that at that time there was no restriction of the handling of green fish scrap. We would accept it as offered. Regardless of interstate or intrastate at this time we would not accept green fish scrap for movement.

Approximately 60% of the bulk fertilizer traffic handled by the Norfolk Southern moves in March and April. The movement of that commodity requires expedited service. During the fertilizer season we are required to move empties into the fertilizer points all the time. There are not sufficient empties made in the territory to take care of the movement. The movement of inbound loads would not, I would say, create a car supply as much as 50 per cent of that required for the outbound loads, as a general proposition, so far as our line is concerned.

[fol. 879] There is a movement of cotton and tobacco during the fertilizer season, but that is not the period of the year when the bulk of that movement is on.

The movement of those commodities, namely, cotton and lumber, do not materially contribute to the creation of an adequate car supply for the movement of fertilizer from industries on the Belt Line to southern points, so far as our line is concerned, because I have to furnish the Belt Line empties right straight along during the fertilizer season. (Tes. 1358-60.)

Cross-examination:

I would not attempt to say about what percentage of cars are made empty on the Belt Line, that is, to take care of the southbound fertilizer movement, without having access to the records of the Belt Line. I do know that there are quite a number of cars made empty on the Belt Line each day, and at times it happens that we do not have to furnish the Belt Line any cars some days.

I would say that the Belt Line could take care of probably 20 per cent of the car requirements, for the movement coming to the Norfolk Southern, having in mind that we have trunk lines coming in there and we have lines from

Central Freight Association coming in and making empties. As a general proposition I would say yes. You are familiar with that.

In regard to the contamination of cars by reason of fertilizer loading, I think the kind of fertilizer in the car that damaged the sugar was called Peruvian guano. Now what that is, I don't know. I would not attempt to say that that was the same material as chemical fertilizer. I have no idea what it is. So far as I am concerned it is just fertilizer.

"Q. Exactly, but you did not attempt to testify that commercial fertilizer had contaminated your cars, did you?

"A. In this oats case I believe that was so.

"Q. What kind of fertilizer was that?

"A. I cannot say what kind it was. The claim papers showed 'previously loaded with fertilizer.'" (Tes. 1360-62.)

[fol. 880] I know that commerical fertilizer is shipped in bags. I have seen considerable sifting through the bags. The floor was quite sticky. That condition was caused by bags leaking or torn. I couldn't say why it should be sticky if it is absolutely dry. Probably water got into it, or something of the sort.

When Mr. Dalton asked a question along the lines of this supposed contamination of cars, I was speaking particularly of our shipments of merchandise where we load our cars, and that had nothing to do with the industries on the Belt Line or on our own line, except to this extent, that as to the industries on our own line we have a large number of tobacco industries, and we release cars on our own line at other places than Norfolk, and at Norfolk. In other words, we do not release sufficient cars at the piers at Norfolk to take care of the outbound movement.

We do not inspect the cars that are placed at the loading plants for loading out. I did not say that we did.

"Q. Do you know the number of brickbats and other different debris to be taken out of cars by fertilizer shippers?

"A. That is true not only of fertilizer people but everybody else, because the cars are not properly cleaned by the receiver of the freight when he releases his shipment."

At our merchandise piers we accumulate about a carload of trash a day. I suppose there are other materials that have odors that we handle besides fertilizer. Take in the handling of oils, and they are usually loaded in a car that is not used for merchandise freight.

As to whether, in regard to fertilizer, just so you have a boxcar that is tight, that is sufficient for fertilizer: It has to be a first class car for fertilizer. It has to have a good tight body. I could not say as to the odors from what was previously in the car not affecting fertilizer.

As to some of these other commodities of which I spoke, such as sugar, we have to be particularly careful with those articles to keep them free from fertilizer or anything else that would contaminate them.

During the months of March and April, other than the transportation of fertilizer, we have—during a pretty good [fol. 881] lumber business, and merchandise, and we have some cotton and tobacco and miscellaneous freight. So far as cotton is concerned I have indicated that that is not very important at that time of the year.

"Q. The spring months are not the months of heavy movement of freight in the south, are they, and March and April particularly?

"A. With the Norfolk Southern that is the best month of the year, and the heaviest earnings."

The fertilizer movement contributes to it.

Fertilizer during March and April does not with us conflict with the peak movement of any other commodity during that same period. I don't know if that would be the same answer as applied to the south generally. I cannot answer for the south generally. We are anchored in the eastern part of North Carolina in a highly developed agricultural territory. (Tes. 1362-66.)

We have some movement of sugar at Norfolk that is brought down from the eastern refineries. I cannot say as to the volume of it or what the volume amounts to. In the handling of sugar the same care in selection of the car for sugar must be made as for all the cars placed for loading of merchandise.

I found in this particular case that sugar has a propensity to absorb odors. As to whether there are other

commodities which, if previously loaded in a car, would render the car not desirable for immediate use in the transportation of sugar: Well, now, I cannot say as to any other commodity because I have noticed so few commodities other than fertilizers. I am familiar with that because I spend a lot of time out on the road, and more of it than in the office. Now, in the case of oil, any freight that is subject to contamination from odor, oil will contaminate. With us we use what we call a car suitable for rough freight only in the oil service. That is lubricating oil. I haven't had any experience with any classes of traffic which render the use of the same car undesirable for the movement of sugar.

[fol. 882] As to oats, it is a propensity of oats to be affected by odors; here is a case proven to our satisfaction. They were very forcibly called to my attention by reason of the fact on January 1st the loss and damage claim department happened to be put under my jurisdiction and these claims came to my attention. I inquired if we had many of that nature, and was informed that we had numerous small claims. These were the only two of which I had any knowledge that were excessive. My experience as to the odors in the cars came from my knowledge gained out on the road. I have had no experience out on the road with respect to the contamination by odors of sugar by any commodity other than fertilizer.

"Q. Do you transport any other commodity which would render the car unsuitable for immediate use in the shipment of sugar?

"A. If we do it is very few cars, outside of oil, as stated."

As to the kind of matter that contaminated that car of oats: I don't know the kind of material. The claim of the consignee, which was investigated as to the condition of the car, simply states it as fertilizer.

I did not have in mind in our testimony concerning the contamination of cars the matter of car supply and the movement of cottonseed meal and cake. I don't believe that the condition that you have cited would apply to that movement.

The railroad paid those claims. (Tes. 1367-70.)

Redirect examination:

This inspection system has been in effect on the Norfolk Southern Railroad for years. That inspection did not grow out of the experience of handling fish scrap or other kinds of fertilizer material. It arose out of the necessity of knowing that the car you are loading merchandise freight in is suitable to transport the commodity. We follow this inspection on all cars, irrespective of what was in it. It is necessary to follow that system with a car that has been loaded with fertilizer material, or fertilizer, or both or either. I mean with respect to both commodities. I think it is just as essential to have that inspection to prevent contamination on account of fertilizer as fertilizer material.

[fol. 883] "Q. As to the objection of the tobacco shipper, Mr. Dugan, is that based upon the fact that the car has previously been loaded with fertilizer material, or fertilizer, or both or either?

"A. As explained to you, it comes to me as fertilizer. Now that covers fertilizer, fertilizer materials and everything going into it, I suppose."

Fertilizer with us, being a seasonal movement, is at a time when the weather is not yet at its best, and a great many people receiving the fertilizer live considerable distances from the railroad, and it has not been because the cars are not released on the average as promptly as other freight. (Tes. 1370-72.)

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McC. B. Wilson was called as a witness in behalf of the respondents and, having been first duly sworn, testified as follows:

Direct examination:

My full name is McC. B. Wilson. I reside in Wilmington, N. C. I am Chief Clerk to auditor of freight receipts, accounting department, Atlantic Coast Line Railroad. I am indirectly under Mr. W. D. McCaig, the Comptroller of the Atlantic Coast Line through the auditor of freight receipts, who is directly under the Comptroller.

In accordance with the instructions of the presiding Commissioner, and with the formula which was adopted after discussion between the Commissioner, the representatives of the shippers and the carriers, the carriers have undertaken to re-rate the fertilizer tonnage for a given period, using for that purpose the rates which the carriers have proposed in this proceeding. Mr. McCaig was the chairman of the accountants' committee appointed for that purpose. I have participated in the work throughout. I feel that I am qualified to answer any questions that others may wish to ask in reference to this test and exhibit which I will file in so far as the compilation is concerned.

Following the understanding that was reached at the last hearing at Montgomery, I understand that there was forwarded to the Commission and distributed to various interested parties a statement showing the results of this [fol. 884] traffic test, including with this statement a copy of the instructions that were issued to the accounting officers for the purpose of preparing the test, and also as a part of the statement an explanatory sheet attached thereto which the carriers desired to submit along with the traffic test results. That was forwarded shortly after the Montgomery hearing.

A short time thereafter certain corrections were found to be necessary in this statement and the corrected statement was forwarded to the Commission and distributed to interested parties. I wish to substitute for that a portion of the corrected statement which covers this explanatory statement submitted by the carriers another sheet that will show in the explanatory statement the correction that was made in the original. And there has been one slight change also in the corrected exhibit, and consequently we have prepared a corrected statement, which is really the third statement which has been prepared, and I have that and am ready to introduce it. (Tes. 1373-1375.)

I now produce and offer for the record this statement in its final form which I have identified.

(The document referred to was received in evidence and marked "Carriers' Exhibit No. 492, witness Wilson.")

Those changes cover the months of March and April, 1925, with the exception of Florida. I intended to file

those instructions. I did not attach them. We can mark that as a separate exhibit. We thought if it was requested we could file them. The instructions have not been changed. Everybody was furnished with them originally.

"Mr. Gwathmey: It — now understood, I believe, Mr. Commissioner, that the instructions to which I referred will be accepted and marked separately from the other exhibits."

(The document so offered and identified was received in evidence and marked "Carriers' Exhibit No. 493, witness Wilson.")

Based upon such knowledge as the carriers have on the character of the fertilizer movement, it is the judgment of the Accounting Committee that the percentage of total revenue change that may be fairly considered to be represented by the results shown for those two months, the total [fol. 885] yearly revenue change is approximately 50 per cent of the movement for the year during those two months. In other words the result shown on this exhibit may fairly be considered as representative of 50 per cent of the results that would occur for the entire year. (Tes. 1375-77.)

Cross-examination:

Turning to statement G. sheets 1 and 2, that covers the single line hauls on all classes of commodities covered by this exhibit. That is fertilizer and materials.

I can give you quite a number of short lines that gave us those figures. There were a great many of them. I cannot give all of them from memory but they are furnished as a part of this exhibit, on statement O. Statement O does not include all short lines subjecting themselves to the test; it only includes the short lines who reported single line short line traffic delivered by them.

Included in that statement there are a number of short lines which do not reach any ports. As to how, then, could any short line handle imported material over its own line exclusively which does not reach a port: this statement contains tonnage of fertilizer and also cottonseed meal, etc., and necessarily those short lines, all the short lines that reported to us, reported under those three classes of commodities, and they are all included here, and there is no

separation made. Statement G covers only single line hauls. Any tonnage included in that statement G need not be tonnage originating at a port or destined to a port to or from a single short line railroad; that is incorrect. Business that originated at any point on the short line or any of these three classes of traffic would be included in this caption of statement G and delivered at a point on that short line would be included in the statement. I have not had occasion to take the tonnages shown in statement G and multiply them by the rate scale which the carriers propose with a view to checking the extensions shown under the column "Proposed revenue."

"Q. It appears that if the tonnages shown on that statement are multiplied by the rates shown as carriers' proposed rates for that class of railroad the extensions will not correspond, leading to a difference of approximately [fol. 886] $44,680. Since the extensions are not the same in any one block of mileage would it be a difficult matter for you to recheck that statement G with the idea in view of determining what may account for the difference between the result which you show and the result which would come about by multiplying the tonnage by the carriers' proposed rates?

"A. The only way that can be done is to have each line that contributed the figures—We got them in final recapitulated form, and they would necessarily have to make an analysis and furnish it, showing how it is divided."

The only thing that suggests itself to my mind is the fact that included in this statement there is some tonnage of imported fertilizing materials, and they were rerated on a different scale than the rest of the tonnage, and a lower scale in some cases. All I know is that we took the figures that the various lines reported to us and allocated these various statements in the same form that they reported them to us. (Tes. 1377-1381.)

I am not familiar with the practical arrangement, and while the map shows them serving a plant there they might not handle a ton of fertilizer out of there.

"Mr. Cotterill:

"Q. Mr. Wilson, it appears that the Savannah & Atlanta Railway is 147 miles long. So if it be a movement of imported traffic over that particular short line which may have caused the discrepancy in these extensions its influence could only extend to distances up to 147 miles, of course. Now, these discrepancies in the extensions run through the entire exhibit, including distances up to 550 miles, but exceeds the length of any short line on your exhibit O. In other words, you have included in that statement G ranges of haul purporting to be single line hauls over short lines, which range of hauls is in excess of the maximum single line distance over any short line included on Exhibit O, all of which tends to the thought that perhaps you would like to re-examine the data which supports this particular exhibit and furnish the Commission with any corrected statement which may occur to you to be proper. Would you care to do that?

[fol. 887] "A. Do I understand that is a request that we do that? That, of course, means we have to go back to each line that gave us the figures and get them to give us a restatement so as — work that out.

"Commissioner Eastman: There is apparently something to explain here, and the Commission would be glad for the explanation.

"Mr. Cotterill: I rather thought so. The amount is not so very large, Mr. Commissioner, but as a multiplication of the tonnage by the proposed rates applicable to short lines does not produce the same extension in any case, the thought naturally is that it may be due to some imported material over some particular short line. But we run into a blind alley there because there is no short line anywhere that has a distance equal to 550 miles, and the suggestion that the Savanna & Atlanta may be the line.

"Commissioner Eastman: Unless you have some explanation to offer of that apparent discrepancy at this time, we would like to know what the explanation is.

"Mr. Gwathmey: Mr. Commissioner, we will consider the matter and before this hearing is over we can offer some explanation. If we cannot, we will endeavor to get up the data in such form as the Commission wants it.

"Mr. McGehee: It will take some little time to get that, but it can be done." (Tes. 1381-83.)

In the transmission of those data to the Commission the carriers made what they call an estimate hurriedly prepared as to the revenue consequence should the freight rate revision on fertilizer in the south take the form of a uniform application of the existing schedule in the State of Alabama. As to how the estimate was made: That is item 6, and with the explanatory statement. We applied to the tonnages shown on statements A, B, G and H the Alabama scale, what they call the Alabama scale. In order to do that it was necessary for us to deduct from statement A, which includes all single line deliveries by both trunk and short line carriers in the territory, the single line tonnages reported on sheet G, which was the single line short line deliveries, while we assumed the remainder would be approximately the single line trunk line deliveries. We applied to that remainder the single line trunk line scale for Alabama. We applied to the tonnage on G the short [fol. 888] line single line Alabama scale. Then we treated statement B and statement H in the same manner, statement B being the consolidation of the joint hauls for trunk line and short line, and we deducted the joint line reported by short lines on H from B, and the remainder would be approximately the deliveries of joint haul traffic by trunk line.

"By Mr. Cotterill:

"Q. Have you preserved and brought with you sufficient of your working sheets in the making of those computations to be able to indicate the dollars of revenue consequence resulting from the application of the Alabama scale to the movements of fertilizer materials over trunk lines alone, as distinguished from its effect upon short lines?

"A. We were able to work that out only in the case of the Atlantic Coast Line, Seaboard Air Line and Southern Railway. I have those figures."

We deducted from statements A and B the short line tonnage and then applied our standard line rates to the remainder, but I understood he wanted to know about the results on certain of the trunk lines.

"By Mr. Cotterill:

"Q. All of the trunk lines.

"A. All right. I did not bring my working sheet showing those separate figures.

I haven't those details. As to the figures shown opposite Item 6 in the explanatory statement that embraces the revenue computation resulting from the application of the Alabama scale to both the trunk lines and short lines. Our conclusion is that based upon that method of computation there would ensue a revenue decrease of some $636,000. I am not able from memory to indicate approximately what proportion of that decrease would be attributable to the effect of the Alabama rates upon the trunk lines as distinguished from the short lines. I cannot answer from memory whether the larger part of that estimated decrease is attributable to the effect of the Alabama structure upon the movements of fertilizer over short lines. I haven't any figures here on that and I cannot re- [fol. 889] call just how that worked out. That has never been given. In our rough sheets is the only place it would appear.

In the making of the entire traffic test, as affecting the importation of certain fertilizer materials, the revenue results were arrived at not by the use of the mileage scale in all instances as applied to the short line distance but by the use of certain figures which were furnished us by the traffic department as representing a measure of port equalization. This item 6 made no allowance for port equalization on import material. (Tr. p. 1383-87.)

A witness to follow me will introduce evidence as to the figures or bases employed in the making of the figures governing the port equalization.

Running through practically all of the sheets, it will appear that if the tonnage is to be multiplied by the rate scales alone the extension would differ from the amounts shown as extensions, but in the greater number of cases I attribute that, of course, to the employment of special rates on the imported movements.

I want to make an explanation with reference to one of the questions asked me this morning in connection with the traffic test. The question that was asked by Mr. Cot-

terill was as to the apparent discrepancy on statement G when you attempted to apply the Royster scale plus 50 cents to the tonnage and found your figure varied in every case. I suggested this morning that that might be due to the differences in rates on import materials, but after we left the meeting and after thinking it over it occurred to me that the greatest difference in that in many instances was caused by the short line meeting the rates between certain points common to both, and that caused that difference. For instance, from Boston to Alabama; the Georgia Northern did haul a good deal of tonnage, but, as a matter of fact, they would have to meet the short line rate of the Atlantic Coast Line. There were numerous instances like that. (Tes. 1387-1390.)

As to statement G embracing distances of as much as 550 miles when apparently none of the short lines have single line mileage of that amount. That on its face does not look right, but we simply took the figures reported to us by the various reporting lines. The Georgia & Florida is a considerable distance from Augusta to Madison. That is the entire distance, 450 miles, of the Georgia & Florida. [fol. 890] But they would not have any single line haul of that distance. The longest haul they would have would be from Augusta to Madison, which I think is about 250 or 260 miles. In the matter of the entire test where a movement occurred over a longer route than a possible shorter route the rerouting was on the basis of the competitive rate in every case. And that did happen in a great many instances, and that accounts for the difference. It gives a lower revenue than you can work by figuring your scale.

That only existed where there was an actual movement via the short line, and it became necessary to meet the joint line rate, either single or joint line.

"Q. Take the case of a movement over a trunk line circuitous route; was that movement shown for its actual distance or was the distance over the route which controlled the rate shown?

"A. I believe the traffic witness has already brought in something on that, hasn't he, Mr. Gwathmey? Didn't they use the workable routes? Wasn't that used?

"Commissioner Eastman: I mean taking your statement A.

"Mr. McGehee: They used the rate-making route, Mr. Commissioner.

"The Witness: The reason I asked that is because the mileage in all instances was furnished us by the traffic committee, and we applied it to whatever rates they gave us."

"By Commissioner Eastman:

"Q. Mr. Wilson, I would be glad if you can check up the long distance and say how it is explained.

"A. Yes, I will be glad to do so. But I take it it will not be necessary to go any further in regard to Exhibit G since I have made that additional explanation."

"Mr. Cotterill: Mr. Commissioner, my recollection has now been refreshed concerning the omission to include the inbound and outbound assembly and distribution costs. I regret we all overlooked the obligation to furnish that, and I am sure it can be obtained and prepared very quickly, and if I may have the privilege, we will transmit it to the Commission and counsel within whatever time limit you prescribe.

[fol. 891] "Commissioner Eastman: Is ten days sufficient?

"Mr. Cotterill: Yes.

"Commissioner Eastman: Very well." (Tes. 1390-93.)

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JOHN WILSON was thereupon called as a witness in behalf of the carriers and, having been first duly sworn, testified as follows:

My name is John Wilson, residence Sumpter, S. C., and I am engaged in farming. I am also president of a short line railroad, the Northwestern of South Carolina, about 81 miles long. I have one farm in Clarendon County and one in Lee County, S. C. I have around 3,000 acres under cultivation. I plant about from 1,100 to 1,200 acres in cotton, probably 800 acres in corn, and the rest of it in small grain. On the cotton I use an average of 800 pounds of fertilizer to an acre. That is a mixture of 400 pounds 16 per cent acid phosphate, 100 pounds of kanite, 100 pounds of cotton seed meal or the same amount of fish scrap and

150 pounds of nitrate of soda; a total of 800 pounds to the acre, which is my average for cotton. I have lived many years in that locality and I am familiar with the general practices of the farmers in my section. The average application per acre is around 300 pounds. The majority of that is the commercial mixture known as 8-3-3. The smaller farmer ordinarily uses the commercial mixture, but the share cropper, where he uses his own fertilizer, uses a small amount of this mixture. I purchase my fertilizer sometimes in bulk, and mostly in carload lots, stacked and packed under the South Carolina law. During the last season I paid for acid phosphate $13.50 a ton; for kanite, $10 a ton; for nitrate of soda, $53 a ton; for fish scrap, $56 a ton; for cottonseed meal, $35 a ton. I do my own mixing. On a small farm I got late in the season I had to buy a small amount of mixed fertilizer. The prices I quoted are f. o. b. port, Charleston in this case. The prices for 1924 are higher than for 1923. 1922-23 the acid was $10.50 per ton; kanite $9.50; nitrate of soda, $48; fish scrap $49; cotton seed meal, $34. For 1925-26, the acid was $14.50; kanite $11; nitrate of soda $54.80; fish scrap $58.50, cotton seed meal, $37. (Tes. 1394-97.)

Those prices were for fertilizer materials. The figures [fol. 892] for the mixed fertilizer for this season are: I have the 8-3-3 and 8-4-4, the two standards in that section. For 1922-23 the 8-3-3 was $20, and for 1923-24 it was $22.50. For 1924-25 it was $25, and 1925-26, $27. The 8-4-4 in the season of 1922-23 was $22.50; for the season of 1923-24, $26; for the season of 1924-25, $28.50, and for the season of 1925-26, $32. I haven't bought any of those mixed goods for this season. The price I got from a fertilizer broker on last Friday. These prices which I quoted are the spot cash prices. The credit prices have been from $5 per ton to $12.50 per ton higher than the spot cash prices. Farmers buying on credit in my section generally get their fertilizer during the latter part of February or the early part of March and those notes are payable October 15th. Covering that period there is an increase of prices of from $5 to $12.50, where the sales are made on credit. They do not pay at the prices prevailing in October. I should say they pay this advance on the price prevailing in March. As I understand it, a man goes down there in March and

makes his arrangements to have his fertilizer shipped on credit, and he gives his note payable October 15th at the higher price from $5 to $12.50 above the cash price. In other words he pays from $5 to $12 a ton more for the use of the fertilizer for 6 months—per ton. That difference is added to the March price. The situation just described had particular reference to the 1923-24 and 1924-25 seasons. There has always been some difference between the cash price and the credit price, ever since I can recall anything about the fertilizer business. The figures given refer to 1923-24 and 1924-25.

There was no change in the freight rate between the two seasons. All the fertilizer people had the same price on these different commodities. They seemed to have an agreement or combine to maintain prices. I went to Charleston in the early part of the season, and that was the information I got from the different fertilizer people, that they had agreed on a price and they were going to stock to it. (Tes. 1397-1400.)

That is my personal information based upon the experience I have had in the matter. I would consider the average production of cotton per acre in my territory about a third of a bale per acre. I think that is fairly rep-
[fol. 893] resentative for my whole section. Before the advent of the boll weevil they made more, but since that time that has been approximately the average yield. Last year it was less than that; less than one-quarter. The price during 1925 has been slightly less on an average for 1924. I cannot tell you what the average for the past number of years has been. Ten years ago it was worth 10¢; in 1924 it went to 42¢, and now it is worth 20¢. It would be a pretty hard matter to figure out what the average has been. In that period of 10 years it ranged from as low as 10¢ to as high as 42¢.

I use fertilizer on other crops than cotton, but not the same amount. On corn I use 500 pounds to the acre, a mixture of either 200 pounds of cotton seed meal or fish scrap, 100 pounds of acid, 100 pounds of kanite and 100 pounds of soda. The smaller farmer fertilizes his corn about 200 pounds of the 8-3-3 or 8-4-4, on an average. Sometimes they apply a little additional dressing of nitrate of soda running 50 to 75 pounds to the acre. In 1925 the

actual cost per acre of the fertilizer used in the production of cotton was $11.62 per acre, and of this the freight cost was $1.09 per acre, or $109 for 100 acres. 10% reduction on fertilizer would amount to $10.90 on 100 acres of cotton to the farmer.

The majority of farmers in my section buy commercial fertilizer, that is the majority in numbers; the majority in acreage do their own mixing. The majority of the acreage planted in my section is fertilized with fertilizer that is mixed by the owner. That is true from the standpoint of acreage because of the fact that certain farmers have large acreages, and they are the ones who buy the materials and do their own mixing. It is cheaper where the farmer does his own mixing. He saves anywhere from $2.50 to $5 and $6 a ton by doing his own mixing. They save fertilizer because then they can make just the formula they want for the different characters of soil that they have. (Tes. 1400-03.)

I have talked to a good many farmers and they are all opposed to increasing the carload minimum from 15 to 20 tons. The smaller farmers club together and buy. There are very few of the smaller farmers who use as much as [fol. 894] a carload, and they have a kind of community affair of it and two or three of them go in together and buy a minimum car.

Cross-examination:

I am president of the Northwestern of South Carolina R. R. I own 50% of it; there are 4 or 5 other stockholders. None of it is owned by the Atlantic Coast Line Railroad Co. I don't know whether any of it is owned by the Atlantic Coast Line Co. Mr. Henry Walters, the last I heard, owned some. I couldn't tell you if it is generally regarded as a Coast Line subsidiary; we don't get any favors of them, I know. I have been actively engaged in agricultural pursuits for 10 or 12 years. I think in some instances the prices we are now paying for fertilizer are about the same as they were before the war, and in others a little higher. Kanite is probably a little lower. I buy for cash. I had to borrow the money to do it, but I paid cash. At the beginning of the season, particularly as to 1923 or 1924, it was true that the prices of fertilizer were more or less de-

moralized and different for different people in the same town, different as between towns, different as between different companies, and more or less in a chaotic condition. This year I am, by the use of fertilizer, making about 2/5th of a bale an acre—I mean 3/5ths. I attribute that, largely, to the more extensive and intensive use of fertilizer. We plant some oats and wheat. I did not testify before this Commission some time back in a proceeding involving grain rates into the South; I did not participate in what is known as the Grain rate investigation. (Tes. 1403-06.)

Redirect examination:

I buy from a thousand to 1,300 tons of fertilizer a year; that is for the last 3 or 4 years when I had an extra farm on my hands.

Recross-examination:

In the making of fertilizer by the larger farmer in my section it is true that my choice of materials was representative of the practice pretty generally in that section. We [fol. 895] buy our cotton seed meal in sacks for January and February delivery. We generally buy in October as we get it generally at a lower price. Once or twice it has been the other way. This being October, I have already bought my meal, and most of my other fertilizer, for next year. The price I quoted on cotton seed meal is f. o. b. shipping point.

On what we used on my cotton crop this year, a 10% reduction in freight rates would be $109 on 100 acres. That is based upon my use of fertilizer. I have here that it would amount to $4.10 on the average used in my section. I have about 1,100 acres in cotton. On the cotton part of it that would be about $120 saving to me; on the other part I would say that a 10% reduction would amount to between $175 and $200 a hundred acres to me. One of my farms is not located on my own railroad; the larger one is. There isn't much difference in the size of the two. My fertilizer supply comes to me over my own railroad; half of what I gain as a farmer by the reduction in rates would come out of my revenue as a railroad man. Up to last year I found my farm profitable, during the last few years. Last year I lost about $20,000. We had a very wet season and there

were no crops made in that section. We are going to break even and pay up some of my old debts this year. The saving of $200 in freight charges would be a small fraction of what I figure my profits this year.

There has been a difference of from $5 to $12.50 a ton between the cash price and the price of fertilizer payable in the following October. I think that difference has been materially increased in recent years. There has always been some difference between cash prices and credit prices, but not so great until the last couple of years. (Tes. 1406-1410.)

I think anyone buying the amount of fertilizer I do would get it at the same price if he started at the same time to but it before the prices go up. We have no organization in my State similar to the Farm Bureau Federation that I know of. I know of no organization which the farmers belong to through which as a medium they can buy their fertilizer in a cooperative way. Our cooperative people do not handle the fertilizer, so far as I know. I have no personal knowledge of such organizations in other [fol. 896] Southern States, but I understand there are such. I think that such organizations could effect material economies or savings in purchasing fertilizer; I don't see why not. I do not know whether that is in effect in a good many other states. To a great extent arrangements are being made through the banks to pay for the fertilizer and save the difference between the cash price and the fall price, and a great many of the banks in my territory are financing and handling the fertilizer for the reliable small farmers. That is becoming much more a practice since this difference between the cash price and the fall price is widening in the last couple of years.

I testified that the farmers want the minimum weight to remain at 15 tons instead of being increased to 20. If the farmers knew that there probably would be some saving to them in the net freight charges by buying in larger quantities, they naturally would be in favor of a higher minimum; but the farmers say that fertilizer moves during a season when the roads are bad, and the average haul is 7 or 8 miles, and it is about all they can do to unload a minimum car now in the free time where three or four or five of them club together to buy a small carload, and if they

had a larger car it would naturally take longer to unload it and they would probably be eating up in demurrage more than they would save in this freight rate.

"Q. But wouldn't the disposition be to effect a small saving by getting one or two more additional farmers to go into this club and not any one man have to take a larger quantity, but they would bring in one or two additional farmers and be able to use a 20-ton car instead of a 15-ton car?

"A. I think that would be a pretty hard proposition to do in several communities, especially in sparsely settled communities, especially when one fellow in that neighborhood would think he could haul better from another station. And I think it would be difficult to get more than four or five to club together and order a car."

I don't think it is a pretty general practice during bad weather and bad roads for these farmers to make arrangements in these towns for a place to store their fertilizer [fol. 897] and go into town and unload the car and then await a favorable opportunity to haul it from the place; most of that fertilizer goes to blind sidings, where there is no station or town, and to places where there is no agent. The majority of it goes out of the towns. A good deal of it goes to the blind sidings where there are no agents, and a good deal to the small towns that have no storage facilities.

This short line railroad of which I am president is about 81 miles long. It runs from Sumter to Camden, and from Sumter to Wilson's Mill. One of my farms is located on the line of this road; the other is on the Coast Line.

I do not operate a cottonseed oil mill. I buy that from the Southern Cotton Oil Company. (Tes. 1410-1415.)

(Witness excused.)

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T. H. Persons was called as a witness in behalf of the carriers and, having been first duly sworn, testified as follows:

Direct examination:

My name is T. H. Persons. I am likewise connected with a short line railroad—unfortunately. Our road is only 7 miles long.

"Q. The question was asked Mr. Wilson if his railroad was a subsidiary of the Coast Line. Does any trunk line own any interest whatsoever in your railroad?

"A. I am sorry I haven't such a partner."

I appeared here to testify at the request of Mr. Strayer of the Short Line Association. I am a member of the American Short Line Association, and I come on a request from Mr. Strayer.

I wish to state that my brother, A. P., and myself are partners in all business matters, and he and I together have farms there, and other possessions.

We own something over 5,000 acres of land in Talbot County, Georgia.

[fol. 898] I am also president of one of the local banks there and am engaged in the mercantile business. And I wish to explain that that is a very small country town and country community and those different interests are small interests. You cannot increase your volume of business in a small community without going out into various lines. Our town is only about 1,200 in population, and our county is an agricultural county, and in order to increase the volume of business we have been forced to go into several lines, but in a small way.

Concerning what has been the prevailing difference in the cash price in our section and the credit price.

I have been in business, my brother and myself, probably 40 years, 40 years the first of September. I have a son now who looks after the farming interest more closely than I do and keeps up with the prices, but I superintend it all in general. But I know this, just as I heard Mr. Wilson testify, that they make a great difference between the credit price and the cash price. And why I am so well aware of it is as a little banker the farmer comes to me on account of the difference which he is charged between cash and credit. And it is just a thing that any business man or farmer would do—not pay such a difference. They feel that he is not worthy of credit, and I have construed it that they did not want to sell it on credit, and it was their way of getting out of selling it on credit at all, I understand, that was responsible for it. I have acted accordingly. I have gone further and stated that one reason they won't credit you. I have been in the business there, the supply business, for

40 years, I have taken a great many mortgages on the farms, and our conditions there are different, and instead of estimating by acreage we estimate so much per plow or per mule in the use of fertilizer.

And I tell them that it has been quite an annoyance to me in a banking way. I have supplied them at the mercantile store and then they come there and want to buy guano. And I have tried to get some of the agents there to ask them if they wouldn't sell them and take a mortgage on the crops; and they won't do that. I told the farmers the reason they don't do that is that you are afraid your client won't make cotton enough to pay for it. Now, those [fol. 899] are facts. And I have two brothers selling guano and I talk to them the same way. The average farmer in our section cannot pay cash for his fertilizer. As I say, I have been there for 40 years. That is my business. He has to get the money somewhere to pay for it. And I don't feel that the supply men are toting fair with us in trying to dump the whole thing on us.

I have bought fertilizer for 40 years. I have never bought a ton of fertilizer only at a delivered price, and the question of freight did not enter into it with me, and it does not enter into it with the farmer. They fix that. The fertilizer people would sell that guano at my station at the delivered price, and I sell it to the farmer the same way.

Now, I want to say this. The panic of 1873 and the cotton caterpillar at that time took me out of school and put me to plowing on the farm, and my every sympathy is with the farmer, and if I felt that the farmer was going to get any of this benefit in my section I would be glad to make any concessions on my little road to give it to him. But I don't believe he would get any of the benefits. As I say, it is sold delivered. Furthermore, after that length of time—if you will excuse me, I am 65 years old and have had some experience, and I have thought of this thing a great deal, and I have studied it. There is a certain amount of plant food in fertilizer per ton, and I believe if these men would put the same amount of plant food into a thousand pounds of fertilizer that they are putting into two thousand they would give us a better fertilizer and you would cut your freight rate in two. That is my honest opinion. If you would just simply use less filler and put that same plant food into a thou and pounds of fertilizer

that you put into two thousand pounds you would reduce your freight rate half then. I do not mix my own fertilizer. I buy all of my fertilizer ready mixed.

I spoke of the farmers in my section and said that they would use so much fertilizer to the plow, one-mule farm. That is the basis.

A farmer is supposed to cultivate about 30 acres with one mule, of ordinary corn and cotton. I feel few of them cultivate that. They guess at the acreage in my section.

Prior to the advent of the boll weevil we felt we could [fol. 900] furnish the farmer two tons per mule. (Testimony 1415-20.)

Cross-examination:

I understand the fertilizer prices are influenced by the quantity of plant food in a ton. Certainly.

If the percentage of plant food to the ton of fertilizer be increased it would mean, of course, a higher price. As to whether the farmers in my section are prepared now to stand for what is called the more high grade, and, we will call it, concentrated fertilizer: The more intelligent farmers would, and the others are followers. I am glad to say that the fertilizer companies and all the State agencies are constantly educating the farmers to take the higher grade goods. I remember something like eight or ten years ago what you termed the 8-2-2 was greatly used. It is not used as much. I think your trend is in the right direction, if you will pursue it further.

I would think the fertilizer company would have no objection to go as far as the farmers will go with them.

The larger operators do their own mixing and under those circumstances they can make it as concentrated as they desire. I paid very close attention to Mr. Wilson's evidence here. I didn't know him personally before I came here. For instance here is the disadvantage that the small farmer is at. He can not buy those ingredients in bulk in sufficient quantities to mix the quantity he needs. Mr. Wilson is in better position. He can buy those ingredients in carloads and do his own mixing. But what can a two-horse farmer do with that?

I have 5,000 acres, but I have farmed it largely on the tenant system. What we mean by tenant system is this.

We put a tenant on there and go shares with him and give him half of what he makes. I do not do my own farming. The tenant system largely prevails in my section. They prefer to have it that way.

"By Mr. Cotterill:

"Q. It is a fact, is it not, that following the advent of the boll weevil in that section and the discouraging situations which followed that as to most of your farms you just charged your tenants no rent at all and allowed them to stay on the land?

[fol. 901] "A. I allowed them to remain there. In fact, I was a great sufferer under the boll weevil conditions, and I stood to the saw and tried to continue, but I found it a losing game. We lost more than $25,000 of my own money but did not want to lose any of anybody else's, and I sort of slacked up, and I have allowed those tenants to remain and have helped them the best I could. My theory is I am trying to induce my people to diversity more. I went to Lexington, Ky., and bought a couple of registered jacks and tried to get them to raise mules. I have bought registered Hereford cattle and am trying to raise bulls, and I put out peach orchards. We have to diversify."

As I admitted, I have had to keep a little old 7-mile railroad running for the last eight or ten years. And, brother, that keeps my hands full. I have a couple of sons, and I told them that I am going to try to turn over to them everything that is disagreeable and unprofitable, and I am trying to find the easiest job I can for myself—I am 65 years old now—without mixing any fertilizer. I have been living down there in Talbotton for some years. My sons are the fourth generation. In the business house we are doing business in Talbotton now in the fourth generation. I regret to say that I do not feel that we have made much advancement as to the control of the boll weevil.

I have made this statement frequently on the streets there. You can take 25 farmers in my country, white farmers who have grown the best crops in the county, and if you ask the farmer his method, especially as to this poisoning, I will venture to say that 50 per cent of them will tell you they made no fight on the boll weevil what-

ever—and of those who made the best crops. Now, I would be a very simple man if I did not want to know what is best, and I have given it study. I have lost money at it. I have spent my life right there. As I said, my sons are the fourth generation of my family occupying one of the buildings in Talbotton now. I have the well being of those people at heart and my sympathies are with them, and I have been trying in every way I could to solve this question, but I don't see that the boll weevil situation is solved yet. I know a good farmer down there by the name of W. N. McGehee at Talbotton. He farms there. In other words, I think he practices law and keeps a tenant going down there. [fol. 902] "Mr. McGehee: That is correct." (Tes. 1420-24.)

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JAMES MENZIES was called as a witness on behalf of the carriers in rebuttal and, having been previously sworn, testified as follows:

Direct examination:

I have testified previously in this proceeding.

I am prepared to submit at this time on behalf of the carriers their proposals as to the adjustment on the imported fertilizer material rates from the various South Atlantic and Gulf ports. I have these exhibits to file now, if agreeable.

(The document referred to was received in evidence and marked "Carriers' Exhibit No. 494, witness Menzies.")

I will file my exhibit 494 which shows the rates the carriers have tentatively checked in on imported fertilizer materials from Virginia, South Atlantic and Gulf ports, to fertilizer manufacturing points in the south, although it may later be found necessary to make changes in some of these figures. Where no rates are shown in the statement no specific import rates have been checked in, and in those instances the scale will apply. These figures were used in re-rating the imported fertilizer material shipments included in the revenue test.

The figures were arrived at by the use of carriers' proposed scale from the rate making port, except in a few instances where, because of the fourth section, the rate to the more distant point was observed as maximum. Rates from other ports were either equalized with the rate making port or checked in with relation thereto.

It will be observed that no rates are proposed from the South Atlantic ports to the Mississippi Valley or from the Gulf ports to Carolina territory. The much shorter distance, and consequently lower rates, from the Gulf ports to Mississippi Valley, for instance, has in the past controlled the movement, and, having handled no shipments from the South Atlantic ports to that territory in the past, we assume there will be no appreciable movement in future. [fol. 903] This is likewise true with respect to the movement from Gulf ports to Carolina territory.

To Abbeville, Ala., which is the first point shown on the exhibit, the rate from Brunswick is made on the scale, and the same rate applied from Jacksonville and Savannah. The Charleston rate was made 75 cents higher. This results in rate from Charleston 27 cents lower than the scale and 15 cents lower than the present rate. The scale has been applied from Pensacola and Mobile, and rates from Gulfport and New Orleans made 56 cents per ton higher, which is the difference in the proposed scale, Gulfport, Miss., over Mobile, Ala., to Montgomery, Ala.

That should be shown as Gulfport, Miss. It reads Gulfport, Ala.

This results in rate 12 cents lower than the scale from Gulfport and 45 cents lower than the scale from New Orleans, and 159 and 135 cents, respectively, lower than the present rates.

To Aiken, S. C., we propose to apply the scale from Charleston and Savannah, while from Wilmington, Brunswick, and Jacksonville we have made the rate the same as Augusta. This results in rate from Wilmington 35 cents lower than the scale and 47 cents lower than the present rate; from Brunswick 33 cents lower than the scale and 56 cents lower than the present rate; and from Jasksonville 6 cents lower than both the scale and the present rate, the present rate being the same as the scale.

To Chattanooga, the rates from Brunswick and Mobile are on the scale, and the same rate applied from Charleston, Savannah, Jacksonville, Pensacola, Gulfport and New Orleans. The rate from Wilmington was made 75 cents higher than Charleston but 28 cents less than the scale. From Norfolk the rate is the same as the rate to Nashville.

To Atlanta the scale has been used from Brunswick, and the same rate applied from Jacksonville, Savannah and Charleston, Wilmington made 50 cents higher. From Gulfport and New Orleans to Atlanta, the proposed rate is the same as the proposed rate from these ports to Chattanooga, the distances being approximately the same. From Mobile and Pensacola the proposed rates to Atlanta were made 50 cents less than the proposed rate from Gulfport and New Orleans.

[fol. 904] To Birmingham the scale was used from Savannah and Brunswick, and the same rate applied from Charleston and Jacksonville. The scale was likewise used from Pensacola and Mobile and the rate from Gulfport and New Orleans made 50 cents per ton higher than Mobile.

To Greenwood, S. C., the rate from Charleston was made on the scale, and the same rate applied from Savannah. Wilmington was made 25 cents over Charleston, Brunswick 57 cents over Savannah (which is the difference at Columbia), and Jacksonville 25 cents over Brunswick.

As representative of the Mississippi Valley territory, I call attention to Jackson, Miss., to which point the rate from Gulfport is made 315 cents, which is the scale for the distance. It is proposed to apply this rate also from Mobile and New Orleans. From Pensacola, the proposed rate is 371 cents, which is made 56 cents higher than the proposed rate from Mobile.

To Jackson, Tenn., the proposed rate from Mobile, Gulfport and New Orleans is 484 cents, this being carriers' proposed scale for the distance from Mobile to Jackson with New Orleans and Gulfport made the same as Mobile. From Pensacola the proposed rate is 540 cents, which is 56 cents higher than proposed from Mobile.

To Montgomery, Ala., the rate from Savannah was made on the scale and the same figure applied from Brunswick and Jacksonville, Charleston being made 50 cents over

Savannah. The scale was applied from Pensacola, and Mobile made the same, with rates from Gulfport and New Orleans 56 cents higher than Mobile.

These are illustrative, and rates to other points were worked out on the same general plan.

This matter was fully discussed when I gave my direct testimony, and the rates are worked up on the theory then explained. (Tes. 1425-29.)

Taking the testimony of Professor Davis as an example, it was stated that the total consumption of fertilizer in the south was 4,700,000 tons, and based upon the increased prices that he gave, the 1925 over 1924—The prices that Dr. Davis gave, which would average not less than $4 per ton, the increased cost to the farmer in the price of fertilizer, 1925 over 1924, would be $18,000,000. Other figures were given as to the increase in price of fertilizer that were [fol. 905] of very much greater—than those figures that Dr. Davis gave. In fact, as I testified in this case, the price in 1924 for 8-3-3 goods was as low as $17.50 per ton, and those in 1925 to about $25 per ton. But I merely made the calculation based upon Prof. Davis' figures.

In that calculation I have not included any additional cost that might accrue in connection with sales made on credit and higher prices where credit was granted. Not knowing the extent to which credit was extended I could not answer that question definitely. The increase in price on account of the extension of credit was at times at least as much as $10 per ton.

At the time when the rates proposed in this case were determined upon by the carriers, necessarily we had to take into consideration the revenue effect. We did not have any definite notion at that time as to what the revenue effect would be of those rates. Of course, we knew that the Royster scale applied to all the traffic would mean a substantial increase in revenue. We knew that. But we had been fighting the State Railroad Commissions, or some of them, for 30 years on this question of low rates on fertilizer, and we felt we were entitled to at least the Royster scale. We had a scale higher than the Royster scale in effect at one time, and that was twice reduced by the Interstate Commerce Commission, and the third Royster scale was finally established with the information on the part of

the Commission itself that we were to base any future applications for revision of fertilizer rates on that scale, and a statement to that effect is made in the record. I don't know why fertilizer should be looked upon as a commodity which should receive special attention on the part of the State Commissions, except that it is regarded as a political proposition, apparently—That is my judgment—when, in fact, if a reduction were made in these fertilizer rates, that reduction, in addition to the $18,000,000 we have already given to the fertilizer factories, with this additional million or so would also go there. I do not believe that the farmer would get any advantage at all. In fact, I have recently been advised—and I think Mr. Wilson talked about the matter here today—that the price for 1925-26 has already been established at a dollar a ton higher than 1925.

[fol. 906] I think the third Royster scale was established at a proper level of the rates on fertilizer regardless of the revenue effect. We did realize that it would increase the revenue of the carriers if applied uniformly throughout the south. We were perfectly well advised as to that.

I never made any definite calculation as to what the increase might be, because I was not familiar with the territories through which—I am explaining now that until this fertilizer question came up I did not have the knowledge which I now have with regard to the Mississippi Valley, for instance, and points beyond our own rails, but I knew that there would be a substantial increase to points on our own rails if the Royster scale were applied throughout.

I am not in any way surprised at the result shown by the traffic test. It does not change my view in any way as to what a proper level of the rates on fertilizer should be. I think that the Royster scale is a reasonable scale of rates for the railroads and for the shippers, and the question has been tried our on five or six occasions, and even the Interstate Commerce Commission has so ruled. (Tes. 1429-33.)

Cross-examination:

Prior to the fall of 1925, I do not recall when the Georgia carriers applied to the Georgia Commission for a reduction of the fertilizer rates.

I made a memorandum of the changes which have been made in the rates in Georgia by the State Railroad Commission for some considerable time in the past, and I think I can get it now and will show it to you. You see I have been in this situation probably a great deal longer than you have. And that makes quite a difference, you know. I remember thirty years ago fighting this same case, fighting the fertilizer question, before the Georgia Commission. And in those days, as today, it seemed to be a great political question as to whether the dear farmer should be protected.

"By Mr. Patterson:

"Q. Just what do you mean when you say it is a political question.

[fol. 907] "A. You want me to be entirely frank about it?

"Q. I do.

"A. I think it is regarded as a vote-getter.

"Q. By State Commissions?

"A. Well, by anybody; anybody who wants office I think generally tackles fertilizer as the first commodity that ought to be reduced."

I do not think State Commissions as a rule would make reductions in the rates on fertilizer in order to influence the farmers to vote for their re-election. I think there are exceptions though.

"Q. Then it would be the rule, and they you say there are exceptions?

"A. Well, I just meant the opposite, if that is the way you interpreted my language."

I do not think any reduction in fertilizer rates would reach the farmer. I have heard of the Farm Bureau Federation. It was mentioned at the Montgomery hearing. I heard the testimony of Mr. O'Neil, who was the president of that organization, to the effect that they are now purchasing for their members enormous quantities of fertilizer and fertilizer materials direct and furnishing it to them at the wholesale price.

"Q. Also that they have in the State of Alabama alone around 30,000 members at this time? Wouldn't any savings in freight be passed by that organization, which is

purely a cooperative organization, directly to the farmer?

"A. If Mr. O'Neil said so, I will say yes. But I understand this organization of which you speak controls a limited part of the whole consumption of fertilizer in Alabama."

I don't know if the membership and its distribution of fertilizer is increasing very rapidly from year to year. I never heard before of a similar organization. There may be other organizations built on different lines, but I never heard of an organization as described by Mr. O'Neill. There is a National Farm Bureau Federation which I know of in a national way as representing the farmers throughout the nation. [fol. 908] In the south it has particularly to do with the marketing of cotton and with the purchase of fertilizer for use in producing cotton. I don't know if it is growing very rapidly in numbers and in the operation for the benefit of the farmers, but I think that is so, if it is for the benefit of the farmers. (Tes. 1432-36.)

As to when the state of Alabama singled out fertilizer to reduce it in the last 30 years: I understood that reductions were mad in 1905, 1907, another reduction in 1907, and in 1918 there was a revision. I suppose that is the revision made by the Federal authorities. That was an upward revision an increase. That was not made by the State Commission; it was made by Federal authorities. There have been since 1897 ten changes in fertilizer rates, and I don't know of any other commodity that has gotten such treatment.

I cannot tell you how many changes were compelled by the Alabama State authorities, on fertilizer as separate from other commodities. As to whether prior to 1907 the Alabama Commission did not have any authority to make rates; purely advisory, just to use its persuasive powers. I have forgotten that was the case because we have heard so much from them since. I know in 1907 that fertilizer was included along with a list of over a hundred other commodities? The 110 commodity list, I know that our railroad put those rates in under agreement.

"By Mr. Patterson:

"Q. Has there been any other instance to your knowledge in which the Alabama authorities made any change

in fertilizer rates except as matters of general revision?

"A. Well, I cannot answer as to that, Mr. Patterson, because I haven't the information before me, I just selected the data as to the changes in fertilizer rates.

"Mr. Gwathmey: My recollection is, Mr. Patterson, that at the first hearing a rather complete history was put in by Mr. Drescher showing the various changes made in Alabama. Frankly, I don't recall at the moment what the answer to your question is, but I think it will appear from that record."

[fol. 909] Since the fall of 1921 the Georgia Commission has been looking toward a general revision of all rates within the State and has passed orders on several commodities besides fertilizer, and all of those commodities—cotton seed, sugar, ground limestone among them—were increases for the carriers in Georgia. In some cases there were increases. I haven't a list of those commodities, so I cannot say that they all were increases, but we have secured some increases from the Georgia Commission on articles other than fertilizer. The fertilizer order that the Commission issued was rescinded, and today the rates that are in effect have been in effect for a good many years, subject, of course, to the increases and decreases.

"By Commissioner Eastman:

"Q. Mr. Menzies, Mr. Archer has given me a memorandum in regard to what was testified as to the revenue effect of these rates when they were put in. On page 427 of the record Mr. Shepherd, of the Illinois Central, stated that the underlying purpose of the revision was to secure uniformity and not additional revenue. On page 412 Mr. Chadwick, of the Mobile & Ohio, testified to the same effect. On pages 607 and 625 Mr. Ketner, of the Seaboard Air Line, also testified to the same effect and stated that he would be surprised if the Royster scale resulted in increased revenue. Does that refresh your recollection in any way as to what your Committee felt in regard to these rates when they determined upon them?

"A. I think, in the first place, Mr. Commissioner, that you will find that the Illinois Central testified to the effect that they desired the Royster scale in Mississippi. Now,

we know very well that the Royster scale applied to Mississippi would quite considerably increase their revenue in Mississippi, because Mississippi has a line of rates that is extremely low. They were put in, according to my information, in the first place, as missionary rates, and these missionary rates have not brought about any general use of fertilizer. Mississippi does not consume anything like the quantity of fertilizer that other States do." (Tes. 1436-40.)

[fol. 910] "Mr. Gwathmey: As to Mr. Ketner's statement, I do not recall that, but I assume if he made that statement that he was talking about the Seaboard Air Line revenue, Mr. Commissioner, with reference particularly to the rates in Florida. I am unable to say without reviewing it whether his statement should be construed in the light of that fact; but it may not be inappropriate to bear that in mind—that all Mr. Ketner was testifying about was the situation in Florida. He was especially designated for that purpose.

"The Witness: That is true. I had forgotten that."

In connection with my Exhibit No. 494 there do not appear to be any destinations in North Carolina included in that exhibit, which leaves the record silent as to the degree of port equalization which might be in the minds of the carriers as reasonable in the case of shipments from the South Atlantic and Virginia ports to North Carolina. I don't know why North Carolina was not mentioned in this statement except for the reason probably that Wilmington generally speaking, is the nearest port and the rates should be made on the scale. Of course, the accounting departments would use the Royster scale if no other were furnished, and the Royster scale would apply through Wilmington to practically the great bulk of the State. There might be some points nearer to Norfolk than to Wilmington.

I should say as the Royster scale has been fixed by the Interstate Commerce Commission on fertilizer from Charleston and from Norfolk that the Royster scale would also apply on these imported fertilizer materials.

"Q. Then, that brings us specifically to the question in the minds of the carriers, whether this system of port equalization should be indulged as to all of the Southern

States except North Carolina, and that as to North Carolina the full distance basis, according to your thought, should be applicable from each of the competing ports.

"A. If Wilmington is the nearest port, of course, that is the basis to be applied generally, and there is no discrimination there.

[fol. 911] "Q. That is entirely clear; but is it the thought of the carriers that the distance scale should likewise be charged from Norfolk into North Carolina and from Charleston into North Carolina?

"A. I should say so without going into the matter thoroughly. Of course, there are some points in North Carolina that are as near to Norfolk as to Wilmington, and therefore Norfolk would get the advantage of that shorter distance rate."

If there is anything wrong in the proposed adjustment from Norfolk as compared with Wilmington to points in North Carolina, of course, we will be very willing to consider a revision. Charleston would come in there to. And Charleston already has the same basis of rates as Wilmington, on the Royster scale on fertilizer. And I assume—while I don't remember now, and I did not attend the last meeting at which these figures were worked out—what I have said about it is the governing point, that the Royster scale would take care of the rates from these three ports. In some cases the rates from Charleston might be less than from Wilmington to points in North Carolina, and that might likewise be true from Norfolk to points in North Carolina.

We would be very glad within a reasonable length of time to supplement this Exhibit 494 by giving the figures to the typical North Carolina destinations from Norfolk and Charleston and Wilmington and Savannah, just as I have done for the other Southern States. The first town here is Abbeville, Ala.; that should be Alabama. There is an Abbeville, S. C., and Louisiana, too.

"Mr. Cotterill: Mr. Commissioner, it appears that in Exhibit No. 494 there are not contained any destinations in North Carolina at all, and it would seem as if there are also included from such list a number of important fertilizer manufacturing points in the interior. It seems to me as if it would be quite important to assure that this record

contained a statement of the measure of port equalization set by the carriers as broad as the statement used by the accountants in the re-rating of the traffic, if that can be done conveniently. And we submit that as a reasonable [fol. 912] request and that the data be furnished and be regarded as supplemental to Exhibit No. 494.

"Mr. McGehee: Is it your understanding that the import rates are before the Commission in this proceeding?

"Mr. Cottrell: Yes, I understood so.

"Mr. McGehee: I understood otherwise.

"Mr. Cottrell: I never had any thought to the contrary.

"Examiner Archer: I suppose that they were. The order simply says rates, as I recall it now." (Tes. 1440-45.)

"Mr. Gwathmey: I would just like to say, Mr. Commissioner, with respect to the import rates, that whether they are or are not finally decided to be in this proceeding, it seems to me that it necessarily follows that the rates that the carrier has presented here are more or less of a tentative nature. I mean by that that they represent our best judgment as to what would probably be a fair relationship. But I have not supposed in any of that that the Commission in this particular case would undertake to work out this question of relationship as between every port. I think it is a matter that perhaps would be best adjusted at some later date anyway. However, with that remark I will say that there is no objection on our part to supplementing this Exhibit No. 494 in the manner asked by Mr. Cotterill." (Tes. 1448.)

"Q. You had certain tonnage moving from, we will say, Charleston to a destination in South Carolina. Now, by what rule were you governed in your instructions to the accounting officers in determining whether that particular movement from Charleston to an interior destination in South Carolina was regarded as intrastate or as import?

"A. I will have to ask Mr. Wilson to explain that. But it would not make any difference whether it was an import or a domestic movement, because the rate from Charleston to South Carolina would be built on Charleston. I mean Charleston would be the nearest port. And the rate would be the same. It would be the same whether it was an import or a local movement." (Tes. 1450-51.)

When the South Carolina Commission made a reduction in the intrastate South Carolina rates the carriers have constantly declined to apply those changed rates to im- [fol. 913] ported material through Charleston, leaving our former intrastate rates in effect as import rates which were higher than the intrastate rates. As to what rule, in computing our present revenue for the purpose of this traffic test, we were governed in determining whether a particular movement was import or domestic: that would be a question of fact that we could prove to our own satisfaction, but as to how it was done I would be very glad if you will ask our accountants. I have really forgotton how it was handled.

As to the rates shown in this exhibit, they are not shipside rates. (Tes. 1451-52.)

Redirect examination:

With reference to this matter of reductions in fertilizer rates made by the various State Railroad Commissions, it is the fact that within recent years, and, in fact, even subsequent to the time when this question as to the general investigation of fertilizer rates began to be agitated there have been a series of appearances before the various State Railroad Commissions by the fertilizer interests in an effort to obtain reductions in fertilizer rates. Reductions were ordered in the State of Alabama, and in the State of South Carolina. And likewise in the State of Georgia.

It is a fact that in all of those proceedings there has been urged as a reason for such reductions the proposition that a reduction in fertilizer rates would operate to the advantage of the farmer. It is my recollection that in some instances, notably the order made by the railroad commission of South Carolina, the latest order, it was expressly stated in the order of the State Commission that the reductions were required because it was thought they would operate to the benefit of the farmer. It is my understanding that that is one of the grounds upon which the carriers took the matter into the Federal courts, claiming that the only power of railroad commission was to order a reasonable rate and that it was without authority to make rates based upon considerations of that sort. So that whatever reason

may have actuated the various State Commissioners in ordering the series of reductions in intrastate rates on [fol. 914] fertilizer, it is apparent, unquestionably, that the impression prevailed that a reduction in fertilizer rates would operate to the benefit of the farmers.

I did not attend the hearing before the Alabama Commission, but I read a great deal about it. Those who attended the hearings from our company, for instance, made reports about it. It may be that the Alabama Commission's action followed a proposal of the railroad to increase the rates in Alabama instead of a demand for a reduction; I canont answer definitely.

"By Mr. Gwathmey:

"Q. Mr. Menzies, I understand, of course, that you have not personally attended these various hearings before the State Railroad Commissions. You have, however, I presume, reports of those hearings from your representatives who do attend?

"A. Yes, sir."

I don't know whether, in any of the proceedings before the State Railroad Commissions, there have been any actual appearances of farmers themselves who have advocated reductions in the fertilizer rates. (Tes. 1452-55.)

(Witness excused.)

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R. A. Chadwick was called as a witness in behalf of the carriers and, having been first duly sworn, testified as follows:

Direct examination:

I have an exhibit which consists of certain tabulations, the statement dealing specifically with 4th section relief desired by the Mobile & Ohio Railroad.

(The document referred to was received in evidence and marked "Carriers' Exhibit No. 495, witness Chadwick.") (Tes. 1455-56.)

(Witness excused.)

[fol. 915] J. F. DALTON was called as a witness in behalf of the carriers and, having been first duly sworn, testified as follows:

Direct examination:

Since the Montgomery hearing we have applied the proposed shippers' scales to the movement of tonnage of the Norfolk Southern Railway included in the traffic test, which includes the traffic on which the Norfolk Southern Railroad is the delivering carrier. I would like to file an exhibit that shows the effect of that scale both upon the intrastate movement in Virginia and North Carolina respectively as well as upon the interstate tonnage of the Norfolk Southern Railroad included in the traffic test.

(The document so offered and identified was received in evidence and marked "Carriers' Exhibit No. 496, witness Dalton.")

It will be observed that the reduction is approximately $74,000, or a little more than 10 per cent of the total reduction shown in Exhibit 492 from the application of the shippers' scale to all of the tonnage involved in the test on behalf of all of the carriers.

I would also like to file an exhibit showing the effect of the proposed scales on the tonnage handled by the Kingston Carolina Railroad for the period January 1 to June 1, 1925. The scale proposed for joint application in connection with the Kingston Carolina Railroad was 50 cents per ton higher than the joint line scale for application between trunk line, and since making this analysis we desire now to modify the proposal for joint line application between the Kingston Carolina, on the one hand, and the trunk lines on the other, to the effect of continuing the present basis of making those rates, which is combination on Kingston Carolina.

This exhibit which I will now offer does not make any separation as between intrastate and interstate traffic but includes all of the tonnage, which has been lumped.

(The document referred to was received in evidence, and marked "Carriers' Exhibit No. 497, witness Dalton.")

[fol. 916] We have also made a similar analysis of the shippers' scale upon the tonnage handled by the Carolina railroad and desire to offer the result of such test as an exhibit, and in doing so to make the same modification with respect to the joint line scale in connection with the Carolina railroad as proposed by the joint line application in connection with the Kingston Carolina.

(The document referred to was received in evidence, and marked "Carriers' Exhibit No. 498, witness Dalton.")

It will be recalled that at the Montgomery hearing testimony was offered to the effect that Kingston Carolina and the Carolina Railroad respectively stock was owned by the Norfolk Southern Railroad; but those roads were never operated as a part of the system of the Norfolk Southern Railroad, and they are not today operated as an integral part of the system of the Norfolk Southern. It has a different set of operating officers, and since the question of applying the trunk line scale of rates over the Kingston Carolina and the Carolina Railroad respectively for local and joint line application during the past two years had been before the North Carolina State Corporation Commission involving the same issue of stock ownership, it occurred to us that it would perhaps be helpful to the Commission to have some information before it as to the consideration of that particular subject by the State of North Carolina, and with the Commission's permission I would like to file an exhibit containing certain excerpts from the Commission's opinion dealing with that situation, and which also goes quite thoroughly into the historical sketch of those railroads from the time they were built. (Tes. 1457-60.)

(The document referred to was received in evidence, and marked "Carriers' Exhibit No. 499, witness Dalton.")

Referring to Exhibit No. 498, which deals with the applications of the shippers' scale on the tonnage handled by the Carolina Railroad, it will be observed that that exhibit shows, first, the effect from a literal application of the scales; second, observing the rates from Norfolk to Maury, N. C., as the maximum rate that might be carried to Snow Hill, N. C., that it grows out of the question of

[fol. 917] cross country competition between Maury, N. C., on the one hand, and Snow Hill, on the other.

The Commission, in 1916, under 4th section Order No. 5694, granted authority to the Carolina Railroad and its connections to carry rates at Snow Hill on classes and commodities, including fertilizer, the same as Maury, in order to effectively meet such cross country competition. In doing so it recognized the need of the Carolina Railroad for added revenues, and the fact that a higher level of rates than those contemporaneously applicable at Maury, N. C., would not bring it any tonnage of any consequence.

I believe that completes all the testimony that I have to offer. (Tes. 1460-61.)

Cross-examination:

In making this revenue test of our railroad, the Norfolk Southern Railroad, as shown in Exhibit 496, I used the standard line scales. I used the standard Alabama scale; one submitted also by Mr. Bosley for application over the Norfolk Southern, which is the same as your standard. (Tes. 1461.)

(Witness excused.)

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McC. B. Wilson was thereupon recalled as a witness for and in behalf of the carriers and having been previously sworn testified as follows:

Direct examination.

"By Mr. Cotterill:

"Q. Mr. Wilson, I want to ask you if in the rerating of tonnage of so-called imported materials you were governed by any prescribed rule enabling you to determine what was imported materials and what was not imported, or were you governed alone by the nature of the commodity shipped from the port?

"A. By the nature of the commodity.

"Q. You were given a list of articles which at some time had reached the port by water from a foreign country,

and you assumed that the movement beyond the port was in continuation of an import movement?

[fol. 918] "A. Well, I would not go that far, Mr. Cotterill. But we have in this exhibit 492, paragraph 2-B, a list of import fertilizer materials taken from the import fertilizer material tariffs. I don't know the number of it. And we were guided entirely by that. Any one of those articles moving from the South Atlantic and Virginia and Gulf ports was included in that group 2-B."

We computed the present revenue on such movement from the billing as it stood; just exactly as it is collected. Of course, some of that business moved on collect bill of lading. All of this was reported on a received basis, and the line that finally delivered it at destination reported it to us on the basis of the actual money that showed on the way-bill.

"Q. Then if you used the money just as shown on the way-bill, that in itself would make unimportant the question as to whether locally the article was an import commodity or not. How about the instances of prepaid billing?

"A. Well, they reported that, of course, as so much freight. It didn't make any difference whether it was prepaid or collect." (Tes. 1461-63.)

(Witness excused.)

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T. A. Bosley was recalled as a witness in behalf of the shippers and, having been previously sworn, testified as follows:

Direct examination:

I have an exhibit containing certain statistical information drawn from official reports to the Commission dealing with the revenues of the Southern carriers throughout a series of years. I will make distribution of the exhibit. In such exhibit, among other things, are set forth figures indicating the tentative valuation of the Southern Class 1 carriers, plus net additions and betterments for succeeding years, for 1922, 1923, 1924, and, in some cases, for the

first six months of 1925. As to the net additions and betterments in the year 1924, the exhibit contains an explana- [fol. 919] tory note that the amount added for that year over 1926 was the same as the amount of 1923 over 1922, as an approximation, because of the absence of the final figures for 1924; it is explained on the bottom of the statement these tentative valuation figures, plus net additions since January 1, 1920, as of January 1, 1923; the same amount as carriers' property investment account increased 1924 over 1923. As to the net railway operating income, that has been computed in two ways; first, before and after deducting Federal income taxes. It shows both net railway operating income after deducting the Federal income taxes and net railway operating income before deducting.

In order to show the net prior to the deduction of the Federal income taxes the net, after deducting the taxes, has been regarded as equal to 7/8 of the whole, or 12½ per cent of the net railway operating income. In effect, we simply added back the 12½ per cent Federal tax.

In that way we were able to have made a computation indicating the rate of return on those tentative valuations as plussed by net additions and betterments for that series of years, as shown on the statement. I do not think the exhibit requires any further comment.

(The document referred to was received in evidence, and marked "Shippers' Exhibit No. 500, witness Bosley.") (Tes. 1463-65.)

Cross-examination:

I did not prepare this exhibit. As to where I got my tentative valuation figures: All of these figures except the net railway operating income before deducting Federal income tax were obtained from the Bureau of Railway Economics.

"Q. Did you get your tentative value there?

"A. That is what I understand to be the fact.

"Q. Do you know?

"A. No, I do not, except that the party who filed this——

"By Commissioner Eastman:

"Q. Is it the tentative valuation used by the Commission in Ex Parte No. 74?

[fol. 920] "A. The tentative valuation shown here, yes; but the property investment is from the Bureau of Economics.

"Mr. McGehee: Inasmuch as Mr. Bosley did not prepare the exhibit and I understand the circumstances under which it is submitted by Mr. Bosley, we have no objection in the world to the submission of the exhibit, with the understanding, Mr. Cotterill, that we have an opportunity to deal with the situation in our brief as to the correctness of the figures.

"Mr. Cotterill: Entirely so.

"The Witness: If they are not correct they are subject to correction." (Tes. 1465-66.)

(Witness excused.)

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McC. B. Wilson was recalled as a witness in behalf of the carriers and, having been previously sworn, testified as follows:

By Commissioner Eastman:

"Q. Mr. Wilson, have you an answer to the question with respect to Item No. 6 in the explanatory statement in Exhibit 492?

"A. I have. The decrease on single line trunk line delivery, $486,712.57. That was the single line trunk. Now on the joint line trunk line deliveries there was a decrease of $79,651.42.

"On the single line short, it resulted in an increase of $16,464.48, while on the joint line short line traffic there was a decrease of $86,246.86." (Tes. 1467.)

The last one is business moving either in connection with the short line plus the short line or a trunk line plus a short line. (Tes. 1467-1468.)

(Witness excused.)

Hearing closed.

[fol. 921] Interstate Commerce Commission, Washington

I, George B. McGinty, Secretary of the Interstate Commerce Commission, do hereby certify that the attached are true copies of the following:

Proposed report of Examiner Archer,

Exceptions on behalf of the Alabama Public Service Commission filed March 27, 1926, and

Petition for rehearing, and brief and argument in support thereof filed by the Alabama Public Service Commission November 11, 1926,

in Cases Nos. 16295, Fertilizer and Fertilizer Materials Between Southern Points, and 16336, Rates on Fertilizer and Fertilizer Materials Within the State of Alabama, the originals of which are now on file and of record in the office of this Commission.

In witness whereof I have hereunto set my hand and affixed the Seal of said Commission this 17th day of May, A. D. 1928.

George B. McGinty, Secretary of the Interstate Commission. (Seal.)

EXHIBIT IN EVIDENCE

Interstate Commerce Commission

No. 16295[1]

Fertilizer and Fertilizer Materials Between Southern Points

Submitted ——, ——. Decided ——, ——

The general basis of rates on fertilizer and fertilizer materials in the southeast being under consideration;

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[1]This report also embraces Docket No. 16335, In the Matter of Rates on Fertilizers and Fertilizer Materials Intrastate within the State of South Carolina; Docket No. 16336, In the Matter of Rates on Fertilizers and Fertilizer Materials and Articles Taking the Same Rates Intrastate Within the State of Alabama; and Docket No. 16484, In the Matter of Rates on Fertilizer and Fertilizer Materials and Articles Taking the Same Rates Intrastate Within the State of Georgia.

Found, that the peculiar function of this traffic and the indirect tonnage resulting from its use entitles it to a relatively low level in the rate scale.

[fol. 922] Reasonable rates prescribed for uniform application between points in the southeast.

Certain so-called short or weak lines accorded arbitraries over the distance scale.

Undue prejudice to exist against interstate shippers and localities, and unjust discrimination against interstate commerce by reason of the intrastate rates in Alabama.

The intrastate rates in Georgia and South Carolina found not to be unlawful for the future, except in individual instances.

Fourth section relief granted, subject to the same limitations as may be imposed in Brick and Clay Products in the South, 88 I. C. C. 543.

Full local rates from the Ohio River crossings and Virginia cities found unreasonable for the transportation of cyanamid originating beyond those gateways.

Frank W. Gwathmey for Atlantic Coast Line Railroad Company, Central of Georgia Railway Company, Seaboard Air Line Railway Company, Nashville, Chattanooga & St. Louis Railway Company, Florida East Coast Railway Company, Charleston & Western Carolina Railway Company, Clinchfield Railroad Company, Atlanta & West Point Railroad Company, Western Railway of Alabama, and Georgia Railroad.

W. N. McGehee for Southern Railway System Lines and Mobile & Ohio Railroad Company.

James Menzies for Atlantic Coast Line Railroad Company.

William B. Rodman and J. F. Dalton for Norfolk Southern Railroad Company, Carolina Railroad, and Kinston Carolina Railroad.

Roy Pope and Gus Richmond for Atlanta, Birmingham & Atlantic Railway, B. L. Bugg, Receiver.

Edward D. Mohr and L. L. Drescher for Louisville & Nashville Railroad Company.

J. L. Sheppard for Illinois Central Railroad Company and Yazoo & Mississippi Valley Railroad Company.

[fol 923] Alex. M. Bull for Gulf, Mobile & Northern Railroad and Birmingham & Northwestern Railway Company.

J. E. Monroe for Alabama & Vicksburg Railway.

N. V. Hutchinson for Columbus & Greenville Railway Company.

E. C. Ash for Alabama, Tennessee & Northern Railroad Corporation and Alabama & North Western Railroad Company.

J. A. Streyer for members of the American Short Line Railroad Association.

Hon. A. G. Patterson, Hugh White, and J. H. Alldredge for Alabama Public Service Commission.

Hon. James A. Perry and E. M. Price for Georgia Public Service Commission.

Hon. R. Hudson Burr and J. H. Tench for Florida Railroad Commission.

Hon. M. C. Moore and B. F. Martin for Mississippi Railroad Commission.

Hon. A. J. Maxwell for North Carolina Corporation Commission.

Hon. Rush H. Knox, Attorney General of Mississippi.

Hon. Oscar Vert, Hon. Isaac Wilder, Hon. Moses R. Glenn, and L. F. Orr for Kentucky Railroad Commission.

Charles E. Cotterill for American Farm Bureau Federation, Southern Traffic League, National Fertilizer Association, Alabama Farm Bureau Federation, Tennessee Farm Bureau Federation, Mississippi Farm Bureau Federation, Louisiana Farm Bureau Federation, Kentucky Farm Bureau Federation, and affiliated state commodity marketing associations.

Harry T. Moore for Atlanta Freight Bureau.

John A. O'Rourke for West Palm Beach Traffic Bureau, West Palm Beach, Fla., and Miami Traffic Bureau, Miami, Fla.

R. L. Askea for Raleigh Freight Traffic Bureau, Durham, N. C., Chamber of Commerce, Farmville Oil & Fertilizer Company, and Freemont Oil Mill Company.

T. A. Bosley for National Fertilizer Association, Southern Fertilizer Association, Southern Traffic League, and Virginia-Carolina Chemical Company.

A. J. Young for International Agricultural Corporation.

M. R. Beaman for Eastern Carolina Wholesale Dealers & Manufacturers Association.

[fol. 924] M. Walsh and E. M. Weatherly for Dothan Chamber of Commerce.

Jas. S. Davant for Memphis Freight Bureau.

J. L. Roberts for Barrett Company.

W. H. Hendley for Spartanburg Transportation Association.

Thomas J. Burke for Charleston Traffic Bureau.

A. J. Whitman for American Agricultural Chemical Company.

R. L. Rogers for Swift & Company.

J. O. Cromwell for Macon Chamber of Commerce and Cotton States Fertilizer Company.

Frank E. Harrison for Florida Traffic Association.

R. G. Cobb for Mobile Chamber of Commerce.

E. B. Gaines for Savannah Traffic Bureau.

L. F. Daspit for Louisiana Farm Bureau Federation.

Fred Juenger for Texas Gulf Sulphur Company.

Thos. D. Guthrie for Jacksonville Traffic Bureau, Inc.

C. W. Hayward for City of Meridian, Miss., and Meridian Traffic Bureau.

D. A. Dashiell for Royster Guano Company.

Hugh M. Frampton and R. O. E. Davis for United States Department of Agriculture.

Robert E. Quirk and Norman, Quirk & Graham for American Cyanamid Company.

Carl Giessow and Edgar Moulton for New Orleans Joint Traffic Bureau.

C. L. Neill and T. P. Goodwin for Mississippi Farm Bureau Federation.

F. W. Beyer for Nitrate Agencies Company and W. R. Grance & Company.

J. A. Parrish for Lakeland Chamber of Commerce and Non-Acid Fertilizer & Chemical Company.

J. W. Kirtland for Standard Chemical Company.

T. M. Henderson and N. S. Owen for Read Phosphate Company and Traffic Bureau of Nashville.

M. M. Caskie for Alabama Cottonseed Crushers Association and Montgomery Chamber of Commerce.

H. E. Snow for Southeastern Live Stock Association.

B. F. Martin and A. R. Fallon for Union Sulphur Company.

[fol. 925] Hugo Ignatius and H. P. Friedman for Portsmouth Oil & Refining Company, Montezuma Cotton Oil Company, Perkins Oil Company, Planters Cotton Oil Company, Inc., Tuscumbia Cotton Oil Company, Inc., Interstate Cottonseed Crushers Association, and Southern Traffic League.

Hugo Ignatius for Buckeye Cotton Oil Company, Southern Cotton Oil Company, Mississippi Cottonseed Crushers Association, Alabama Cottonseed Crushers Association, Georgia Cottonseed Crushers Association, South Carolina Cottonseed Crushers Association, and North Carolina Cottonseed Crushers Association.

Wm. H. Fleming for Southern States Phosphate & Fertilizer Company.

W. C. Erman for Southern Cotton Oil Company, Southern Traffic League, and Interstate Cottonseed Crushers Association.

F. G. Moore for Davison Chemical Company and National Fertilizer Association.

W. Albert Wilde for Lexington Board of Commerce.

Report Proposed by H. W. Archer, Examiner

Dissatisfaction on the part of shippers and users as well as of carriers with the rates on commercial fertilizer and fertilizer materials in the southeast [2] has for some time been increasingly voiced, reaching the commission through formal as well as informal complaints. The disposition of such formal proceedings as have been brought has served to mitigate the discontent only in the particular sections affected, and has not reached the root of the difficulty. Interstate rates vary greatly for substantially similar hauls; many fourth section departures exist; and the intrastate rates which have been prescribed and enforced by some of the State authorities constitute a bone of conten-

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[2] A description of the southeast as covered by this investigation will be found in appendix A hereto. In general, it covers southern classification territory, including the State of Virginia.

tion between those authorities and the carriers, and have adversely affected, it is said, manufacturers and dealers shipping into those states from interstate points. During 1924, three petitions were filed with the commission by carriers seeking relief under section 13 of the interstate com- [fol. 926] merce act from what they consider the unduly low intrastate rates in the State of South Carolina, Alabama and Georgia.[3]

Three times the rates on fertilizer from Norfolk, Va., to points in North Carolina have been before us in what have come to be known as the Royster Cases,[4] and the rates there finally prescribed by this commission are now considered unsatisfactory by the Corporation Commission of North Carolina. The general conditions obtaining with respect to the fertilizer rates throughout the southeast led the commission on October 7, 1924, on its own motion, to institute a general investigation and inquiry "into and concerning said interstate rates on fertilizers, fertilizing compounds, and fertilizer materials and the charges resulting therefrom, * * * with a view to determining whether said rates and charges are unreasonable or are unduly prejudicial to or unduly preferential of particular localities or persons and to making such order or orders as may be proper in the premises."[5]

The purpose of this proceeding, therefore, is to determine upon a basis of rates for interstate application throughout the territory involved which will be reasonable for the transportation of fertilizer and fertilizer materials, will be free from undue prejudice and preference, and will conform, as nearly as may be, to the provisions of the fourth section of the act. With the proceeding there have been consolidated for hearing and disposition the three section 13 cases already referred to which involve alleged undue preference of intrastate traffic in Alabama, Georgia, and

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[3] Dockets Nos. 16335, 16336, and 16484, respectively, already referred to.

[4] Royster Guana Co. v. A. C. L. R. R. Co., 31 I. C. C. 458; Same v. Same, 38 I. C. C. 190; and Same v. Same, 50 I. C. C. 34.

[5] See Appendix A for full copy of order of October 7, 1924.

South Carolina, and alleged undue prejudice to interstate traffic. While other intrastate rates have not been brought in issue, the desirability of fixing interstate rates which can appropriately and fairly be used as a basis for achieving harmony and uniformity in the rates applicable on both [fol. 927] classes of traffic throughout the southeast is one of the principal aims of the commission in this proceeding.

Hearings have been held at Atlanta, Ga., Montgomery, Ala., and Washington, D. C., and the record, containing over 1,400 pages of testimony, and 500 exhibits, seems fully to cover all angles of the subject. In the beginning the parties were advised that the principles enunciated in the joint Congressional resolution known as the Hoch-Smith Resolution* were now a part of the law, and that conclusions would be reached with those principles in mind. They were cautioned to submit such evidence as was deemed by them pertinent in the premises.

The "true policy in rate making," as declared in this resolution, is "that the conditions which at any given time prevail in our several industries should be considered in so far as it is legally possible to do so, to the end that commodities may freely move." The condition of the fertilizer industry was not pleaded at the hearings. The position of the manufacturers, as stated by their principal witness, is that fertilizer should be assigned "to such a rating as recognizes its peculiar position as an agricultural necessity." That the existing inequalities in the present rate adjustment shall be wiped out and uniformity prevail is clearly the predominant issue so far as the manufacturers are concerned.

A second mandate of this resolution is that because of "existing depression in agriculture * * * such lawful changes in the rate structure of the country as will promote the freedom of movement by common carriers of the products of agriculture affected by that depression" shall be brought about. The freight rates on fertilizer, in and of themselves, have only an indirect relation to the "freedom of movement" of agriculture products. Beyond question the free use of fertilizer increases production, and in this way tends to reduce unit costs, but this phase of the resolution as well as its general spirit are, it seems, fully

*See Appendix B for copy of resolution.

taken care of by certain elements which, in the past, have been considered by this commission in fixing rates on this traffic, namely, its importance in the successful conduct of [fol. 928] agriculture, and the increased tonnage accruing to the carriers by reason of its use. In a number of decisions, the commission has said:

Fertilizer is a low-grade traffic, subject to no great risk in transit and requiring no special service for its transportation in the sense that "special service" is generally understood. Its free movement and use is an auxiliary tending to produce and furnish a larger volume of traffic and thus promote the prosperity of carriers and their patrons, so that considering both commercial and transportation conditions, it is entitled to comparatively low rates. Virginia-Carolina Chemical Co. v. St. L. S. W. Ry. Co., 16 I. C. C 49, 52-53; Meridian Fertilizer Factory v. V., S. & P. Ry. Co., 20 I. C. C. 554, 555; Meridian Fertilizer Factory v. T. & P. Ry. Co., 26 I. C. C. 351, 353, and other decisions.

The commissions of the States of Alabama, Georgia, Florida, Mississippi, Kentucky, and North Carolina were represented at the hearings, and they took an active and helpful part in developing the record. At the instance of the shipping interests, the United States Department of Agriculture also participated, its position being merely to present certain facts and statistics relative to the industry and to the use of fertilizer.

## General History of the Fertilizer Industry

The fertilization of soils to increase their productivity has been practiced since the earliest times. The discoverers of America found the Indians fertilizing their corn by placing a dead fish in the hill of each plant. Such articles as ashes, animal offal, scraps of meat, vegetable waste, and the like, were quite commonly used in the early days, and at that time were, in fact, the only known fertilizing agents. The first commercial fertilizing material of any consequence sold in this country was Peruvian guano, used principally by the cotton and tobacco planters of the South.

It was not until late in the eighteenth century that definite steps were taken to ascertain the functions of the various fertilizing materials used. Through experimentation it was learned that nitrogen accounted for the vegetable [fol. 929] growth of plants; phosphoric acid for their fruitage and maturity, and potash or potassium for their vigor and strength, and so today all so-called complete fertilizers contain at least two of these plant foods, and generally all three. Other elements are essential to plant life, but they are usually found in sufficient quantities in the soil, and are seldom included in fertilizing compounds.

The fertilizer industry as we know it today had its beginning in South Carolina with the discovery of phosphate rock deposits. In 1860, Dr. Nathaniel Pratt of Charleston, S. C., ascertained that this rock contained a high percentage of phosphoric acid, and later it was found that this could be made available as a plant food by treating the ground rock with sulphuric acid. In 1869 and 1870 the first acid phosphate for fertilizing purposes was produced. Phosphate rock is now largely secured in Florida and Tennessee, some being furnished by Kentucky, the quarries in South Carolina having become practically exhausted.

Nitrogen, probably the most important of the three essential elements, is obtained principally from nitrate of soda imported from northern Chile, where the only deposits of caliche (as the unrefined salt is called) having a commercial value are located. Scattered deposits have been found in this country but not in sufficient quantities to warrant exploitation. The first shipments of nitrate were brought into this country in 1830, but it was not until about 1881 that the importation became important. During the calendar year 1924, over 1,000,000 net tons were imported through the various ports. Ammonium sulphate is also an important carrier of nitrogen in the form of ammonia, and the production of this commodity, a byproduct of coke ovens and gas plants, has increased rapidly within the last few years, over 600,000 tons having been produced in 1923.

The other principal carriers of nitrogen in ammoniate form are tankage, blood, fish scrap, and cottonseed meal, and in recent years the nitrogen in the air has been extracted and combined with calcium carbide, a fused mixture

of lime and coke, producing what is known as cyanamid. This last named commodity is produced at Niagara Falls, Ontario, Canada, the only plant in North America, and is imported from European countries.

[fol. 930] Potassium, commonly known as potash, the third essential plant food supplied by commercial fertilizers, is obtained principally from potassium sulphate, potassium muriate, manure salts, and kainit, imported from the mines of Germany and the Alsacian mines of France. During the World War these foreign fields were inaccessible, and manufacturers in this country were forced to turn their attention to domestic sources of production. The principal natural sources discovered in this country have been Searles Lake in California and certain lakes in Nebraska. It is also obtained as a by-product at cement mills, blast furnaces, and in the manufacture of alcohol from molasses. In 1919 the domestic production of available potash had reached approximately 50,000 tons. Since the War, however, foreign competition reduced the production in this country to 23,000 tons in 1924 as compared with an importation during the same year of 655,326 tons.

## Importance of Fertilizer to the Southeast

The importance of fertilizer to the southeast is graphically shown by the fact that it is by far the largest user of any section of the country. Out of a total consumption in the United States of 6,647,308 tons in 1923, the southeast used 4,220,807 tons. Of the southeastern states, North Carolina, South Carolina, and Georgia led in the amount consumed, their total for that year being 2,436,375 tons. In 1924 the total production was 7,272,000 tons, of which the southeast used 4,680,000 tons, a little less than half of which was used on cotton alone. The average consumption of fertilizer per acre, determined by dividing the total amount used by the acreage under cultivation, is shown to have been used in 1923 as follows:

| | |
|---|---|
| Florida | 557 pounds. |
| North Carolina | 298 " |
| South Carolina | 231 " |
| Virginia | 210 " |
| Georgia | 136 " |

| | | |
|---|---|---|
| Alabama | 103 | pounds. |
| Mississippi | 65 | " |
| Louisiana | 51 | " |
| Tennessee | 32 | " |
| Kentucky | 30 | " |

[fol. 931] The above figures do not, of course, represent the actual application per acre, for all cultivated lands are not fertilized. For example, in Alabama the average amount actually used per acre on fertilized crops was said to be around 230 pounds. In some cases as high as 800 pounds per acre are used on cotton, but the average application on this crop in the several southeastern states is shown to be as follows:

For the Year 1924

| | | |
|---|---|---|
| North Carolina | 450 | pounds. |
| Virginia | 440 | " |
| South Carolina | 345 | " |
| Georgia | 270 | " |
| Alabama | 238 | " |
| Tennessee | 205 | " |
| Florida | 200 | " |
| Mississippi | 200 | " |
| Louisiana | 175 | " |

In the growing of tobacco and in truck farming, the application per acre is somewhat greater than in the case of cotton. This is illustrated by the fact that in Florida, which is largely devoted to the growing of vegetables and fruits, the consumption of fertilizer per acre of land cultivated was 557 pounds in 1923. Of a total of 573 manufacturing plants in the United States devoted exclusively to the production of fertilizer, 422 were located in southeastern territory, over 120 plants being located in Georgia alone.

The fertilizer tonnage is also of relatively greater importance to the southeastern carriers than it is to the lines of other sections. In 1923, the fertilizer tonnage of the southern roads represented 1.46 per cent of their total freight tonnage, as compared with .35 per cent in the eastern district and .18 per cent in the western district. The Atlantic Coast Line leads the southern carriers in the total

of fertilizer handled, with the Southern second, and the Seaboard Air Line third. In the ratio of fertilizer to the total freight transported, the Central of Georgia ranks first, its fertilizer tonnage representing 6.61 per cent of the total, with the Atlantic Coast Line second, and the Norfolk Southern third. These transportation figures, it is [fol. 932] said, do not include such materials as potash, acid phosphate and nitrate of soda, these articles, for purposes of statistical returns to this commission, being included in Commodity Group 66, chemicals and explosives. If taken into consideration, as they should be, the carriers' figures showing the fertilizer tonnage transported would no doubt be appreciably increased. The total revenue of Class I roads in the Southern district for 1923 from their fertilizer tonnage is shown as $10,307,000, or 1.3 per cent of the total revenue from all freight handled. In the Eastern District the revenue from the transportation of fertilizer represented but .3 per cent of the total freight revenue. The revenue of the Atlantic Coast Line from fertilizer represented 4.7 per cent of its total freight revenue for 1924, and that of the Southern for the first seven months of 1924 represented 3.63 per cent of its total revenue for the same period.

It seems to be beyond debate that agriculture in the south cannot be successfully conducted without the use of fertilizer, and agriculture is said to be the basic industry of that section. The vice-president of the American Farm Bureau Federation testified that "the relationship which fertilizer bears to successful agriculture is immediate and so direct as in large measure to control the tonnage of agricultural products transportable by the carriers and indirectly to control their total tonnage by reason of the influence which successful agriculture has upon general conditions of prosperity throughout all lines of business in the south." In the south Atlantic States it is said that to the use of fertilizer is due one-half of the tobacco crop, one-third of the crop of white and sweet potatoes, wheat, and truck crops, and two-thirds of the cotton crop. Under experiments conducted by the North Carolina Department of Agriculture, it was found that an application of 800 pounds per acre of fertilizer analyzing 7 per cent phosphoric acid, 5 per cent ammonia, and 4 per cent potash, re-

sulted in an increased production over unfertilized soil of 834 pounds of seed cotton per acre. In the State of Alabama, experiments showed that while there was an average production of but 98 pounds of lint cotton per acre without fertilization, 203 pounds were produced by the use of 325 pounds of fertilizer per acre, and 260 pounds were [fol. 933] produced by the use of 650 pounds of fertilizer. Based on returns from the entire southern cotton area, it was shown that with an average expenditure in 1924 of $1.73 per acre for fertilizer, the yield was but 36 pounds of lint cotton, whereas with an expenditure of $5.73 per acre, the yield was 637 pounds. It takes approximately three pounds of seed cotton to produce one pound of lint.

Defendants admit the economic advantages accruing from the use of fertilizer, but contend that because of this very fact there is no more reason for subnormal rates on this particular commodity than there is for rates below a reasonable level on implements of the farm, inasmuch as they, too, are necessary for the successful operation of agriculture.

## The Carriers' Proposal

In order to remove the many inconsistencies in the fertilizer rate structure, the carriers propose for uniform application throughout the southeast, except as hereinafter noted, a distance scale of rates based on the scale prescribed by this commission in Royster Guano Co. v. A. C. L. R. R. Co., 50 I. C. C. 34, and hereinafter referred to as the Royster Scale. That proceeding involved rates on fertilizer from Norfolk, Va., to points in North Carolina, and these rates, as stated, have been three times before this commission. The rates were first attacked by the Royster Guano Company in 1913 as unreasonable and unduly prejudicial to Norfolk and unduly preferential of Wilmington, N. C. On July 1, 1914, this commission prescribed a reasonable distance scale, with a carload minimum weight of 20,000 pounds. 31 I. C. C. 458. On October 13, 1914, there were promulgated by a special committee, appointed by the Governor of North Carolina under an act of the legislature, certain State rates, among them rates on fertilizer which were materially lower than the intrastate rates in effect at the time of the commission's

decision of July 1, 1914. This brought forth a further complaint from the Royster Guano Company alleging that the rates from Norfolk were unreasonable per se, and unduly prejudicial to complainant and the City of Norfolk [fol. 934] and unduly preferential of competitors operating in North Carolina. Under date of February 18, 1916, this commission issued its second report reaffirming its previous finding as to a reasonable scale of rates, and requiring the same level of rates to be maintained in the State of North Carolina in order to remove the undue prejudice to Norfolk and shippers at that point. Subsequently the order in the second proceeding was amended to increase the minimum from 20,000 pounds to 24,000 pounds. Later, in accordance with the expressed desire of the Corporation Commission of North Carolina, the amended order was vacated and the proceeding reopened for further hearing, that commission coming in as an intervener. As the outcome of the further hearing, this commission adopted the intrastate rates in North Carolina as reasonable maximum rates from Norfolk to points in that state, but increased the minimum carload weight to 30,000 pounds.

The carriers do not propose this scale as representing reasonable maximum rates, but as a proper basis in view of all the circumstances and conditions. The scale proposes is shown below. In connection therewith are given the ton-mile as well as the car-mile earnings based on the proposed minimum of 30,000 pounds.

[fol. 995]

| Miles | Proposed single line rates | Revenue per ton-mile (a) (Cents) | Revenue per car-mile (a) (Cents) | Proposed joint line rates | Revenue per ton-mile (a) (Cents) | Revenue per car-mile (a) (Cents) |
|---|---|---|---|---|---|---|
| 5 and under | $.90 | 18.00 | 270. | | | |
| 10 and over 5 | 1.02 | 10.20 | 153. | $1.36 | 10.60 | 204. |
| 15 " " 10 | 1.24 | 8.26 | 124. | 1.58 | 10.53 | 158. |
| 20 " " 15 | 1.35 | 6.75 | 101. | 1.69 | 8.45 | 126. |
| 25 " " 20 | 1.47 | 5.88 | 88. | 1.81 | 7.24 | 108. |
| 30 " " 25 | 1.58 | 5.27 | 79. | 1.92 | 6.40 | 96. |
| 35 " " 30 | 1.58 | 4.51 | 67. | 1.92 | 5.49 | 82. |
| 40 " " 35 | 1.69 | 4.25 | 63. | 2.03 | 5.07 | 76. |
| 45 " " 40 | 1.80 | 4.00 | 60. | 2.03 | 4.51 | 67. |
| 50 " " 45 | 1.80 | 3.60 | 54. | 2.14 | 4.28 | 64. |
| 55 " " 50 | 1.92 | 3.49 | 52. | 2.14 | 3.89 | 58. |
| 60 " " 55 | 2.03 | 3.38 | 50. | 2.25 | 3.75 | 56. |
| 65 " " 60 | 2.03 | 3.12 | 46. | 2.37 | 3.65 | 54. |
| 70 " " 65 | 2.14 | 3.06 | 45. | 2.37 | 3.39 | 50. |
| 75 " " 70 | 2.14 | 2.86 | 42. | 2.48 | 3.31 | 49. |
| 80 " " 75 | 2.25 | 2.81 | 42. | 2.59 | 3.24 | 48. |
| 85 " " 80 | 2.37 | 2.79 | 41. | 2.59 | 3.05 | 45. |
| 90 " " 85 | 2.37 | 2.63 | 39. | 2.70 | 3.00 | 45. |
| 95 " " 90 | 2.48 | 2.61 | 39. | 2.70 | 2.83 | 42. |
| 100 " " 95 | 2.59 | 2.59 | 38. | 2.82 | 2.82 | 42. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 110 " " | 100 | 2.59 | 2.35 | 35. | 2.93 | 2.66 | 39. |
| 120 " " | 110 | 2.70 | 2.25 | 33. | 2.93 | 2.44 | 36. |

[fol. 936]

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 130 and over | 120 | 2.70 | 2.08 | 31. | 3.04 | 2.34 | 35. |
| 140 " " | 130 | 2.82 | 2.01 | 30. | 3.15 | 2.25 | 33. |
| 150 " " | 140 | 2.93 | 1.95 | 29. | 3.27 | 2.18 | 32. |
| 160 " " | 150 | 3.15 | 1.97 | 29. | 3.38 | 2.11 | 31. |
| 170 " " | 160 | 3.15 | 1.85 | 28. | 3.49 | 2.05 | 30. |
| 180 " " | 170 | 3.27 | 1.82 | 27. | 3.49 | 1.94 | 29. |
| 190 " " | 180 | 3.27 | 1.72 | 26. | 3.60 | 1.89 | 28. |
| 200 " " | 190 | 3.38 | 1.69 | 25. | 3.72 | 1.86 | 27. |
| 210 " " | 200 | 3.49 | 1.66 | 25. | 3.72 | 1.77 | 26. |
| 220 " " | 210 | 3.49 | 1.59 | 24. | 3.83 | 1.74 | 26. |
| 230 " " | 220 | 3.60 | 1.57 | 23. | 3.83 | 1.67 | 25. |
| 240 " " | 230 | 3.72 | 1.55 | 23. | 3.94 | 1.64 | 24. |
| 250 " " | 240 | 3.72 | 1.49 | 22. | 4.05 | 1.60 | 24. |
| 260 " " | 250 | 3.83 | 1.47 | 22. | 4.05 | 1.56 | 23. |
| 270 " " | 260 | 3.83 | 1.42 | 21. | 4.17 | 1.54 | 23. |
| 280 " " | 270 | 3.94 | 1.40 | 21. | 4.28 | 1.53 | 23. |
| 300 " " | 280 | 4.05 | 1.35 | 20. | 4.39 | 1.46 | 22. |
| 320 " " | 300 | 4.28 | 1.34 | 20. | 4.50 | 1.40 | 21. |

(a) The earnings shown are based on the greatest mileage in the individual blocks.

| Miles | | | Proposed single line rates | Revenue per ton-mile (a) (Cents) | Revenue per car-mile (a) (Cents) | Proposed joint line rates | Revenue per ton-mile (a) (Cents) | Revenue per car-mile (a) (Cents) |
|---|---|---|---|---|---|---|---|---|
| 340 | " " | 320 | 4.39 | 1.29 | 19. | 4.62 | 1.36 | 20. |
| 360 | " " | 340 | 4.50 | 1.25 | 19. | 4.84 | 1.34 | 20. |
| 380 | " " | 360 | 4.62 | 1.22 | 18. | 4.95 | 1.30 | 19. |
| 400 | " " | 380 | 4.84 | 1.21 | 18. | 5.07 | 1.27 | 19. |
| 420 | " " | 400 | 4.95 | 1.18 | 18. | 5.18 | 1.23 | 18. |
| [fol. 937] | | | | | | | | |
| 440 | " " | 420 | 5.07 | 1.15 | 17. | 5.40 | 1.23 | 18. |
| 460 | " " | 440 | 5.18 | 1.13 | 17. | 5.52 | 1.20 | 18. |
| 480 | " " | 460 | 5.40 | 1.13 | 17. | 5.63 | 1.17 | 17. |
| 500 | " " | 480 | 5.52 | 1.12 | 16. | 5.74 | 1.15 | 17. |
| 525 | " " | 500 | 5.63 | 1.08 | 16. | 5.97 | 1.14 | 17. |
| 550 | " " | 525 | 5.74 | 1.04 | 15.6 | 6.08 | 1.11 | 16.6 |
| 575 | " " | 550 | 5.97 | 1.04 | 15.5 | 6.19 | 1.07 | 16.1 |
| 600 | " " | 575 | 6.08 | 1.00 | 15.2 | 6.30 | 1.05 | 15.7 |
| 625 | " " | 600 | 6.19 | .99 | 14.8 | 6.53 | 1.04 | 15.6 |
| 650 | " " | 625 | 6.30 | .97 | 14.5 | 6.64 | 1.02 | 15.3 |
| 675 | " " | 650 | 6.53 | .97 | 14.5 | 6.75 | 1.00 | 15.0 |
| 700 | " " | 675 | 6.64 | .95 | 14.2 | 6.87 | .98 | 14.7 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 725 | " | " | 700 | 6.75 | .93 | 14.0 | 7.09 | .97 | 14.6 |
| 750 | " | " | 725 | 6.87 | .91 | 13.7 | 7.20 | .96 | 14.4 |
| 775 | " | " | 750 | 7.09 | .91 | 13.7 | 7.32 | .94 | 14.1 |
| 800 | " | " | 775 | 7.20 | .90 | 13.5 | 7.43 | .93 | 13.9 |
| 825 | " | " | 800 | 7.32 | .89 | 13.3 | 7.65 | .93 | 13.9 |
| 850 | " | " | 825 | 7.43 | .87 | 13.1 | 7.74 | .91 | 13.7 |
| 875 | " | " | 850 | 7.65 | .87 | 13.1 | 7.92 | .91 | 13.6 |
| 900 | " | " | 875 | 7.77 | .86 | 13.0 | 8.01 | .89 | 13.4 |
| 925 | " | " | 900 | 7.88 | .85 | 12.8 | 8.19 | .89 | 13.3 |
| 950 | " | " | 925 | 7.99 | .84 | 12.6 | 8.37 | .88 | 13.2 |
| 975 | " | " | 950 | 8.22 | .84 | 12.6 | 8.46 | .87 | 13.0 |
| 1000 | " | " | 975 | 8.33 | .83 | 12.5 | 8.55 | .86 | 12.8 |

(a) The earnings shown are based on the greatest mileage in the individual blocks.

[fol. 938] The foregoing scale is intended to apply not only on mixed fertilizers, but on the various materials entering into the manufacture thereof. These materials are set out in appendix C. Various carload minima are proposed in connection with the different articles, as shown in the appendix, ranging from 30,000 to 60,000 pounds, the majority taking a 40,000-pound minimum. It will be observed from this list of materials that phosphate rock is included only in its ground form, and that sulphuric acid, with which the ground phosphate rock is treated in order to make available the phosphoric acid content of the rock, is not named. Neither is ground limestone embraced in the list of materials. These commodities generally take somewhat lower rates than are accorded other materials, and all parties seem agreeable to excluding them from consideration in this proceeding.

In presenting this scale for application throughout southern territory, witness explained that it was not intended to apply between points on the Chesapeake & Ohio, between points on the Norfolk & Western from Norfolk, Va., to Cincinnati, Ohio, nor between points on the Virginian from Norfolk to Deepwater, W. Va., these lines being embraced in what is known as truck line territory, and their rates governed by official classification. The exclusion of rates between these points, except local points on the Chesapeake & Ohio in Kentucky which were not included in the order, seems, however, to have been predicated on the probability that these carriers would individually participate in the proceeding in protection of their respective interests, but although made parties to the proceeding no appearances were entered on their behalf.

The Royster Scale is proposed by the carriers because it has been prescribed by this commission in two subsequent cases, namely, Freight Adjustment Steering Committee v. A. C. L. R. R. Co., 53 I. C. C. 506, decided June 9, 1919, and Goldsboro Chamber of Commerce v. A. C. L. R. R. Co., 91 I. C. C. 315, decided July 10, 1924; and it is, therefore, considered that that scale has been impressed to a more or less extent with the sanction of this commission. Those cases involved rates on fertilizer and fertilizer materials from Charleston, S. C., to North Carolina destinations, and from Wilmington, N. C., to destinations in the same State, re- [fol. 939] spectively. Besides the rates maintained in ac-

cordance with these decisions, the Royster Scale is also in effect from Richmond, Va., to points in North Carolina, from Wilmington and other points in North Carolina to destinations in South Carolina, from points in South Carolina to points in North Carolina, and from points in North Carolina to destinations in Virginia. Forty-six per cent of the total fertilizer tonnage handled by the Atlantic Coast Line in 1923 moved, it is testified, under the Royster scale. This scale is said to be lower, generally speaking, than the rates from Savannah, Atlanta, Elberton and Macon, Ga., to various points in South Carolina, from Albany, Ga., to points in Florida, from Charleston to South Carolina destinations on imported fertilizer material, from Dothan and Montgomery, Ala., to certain Georgia points, and in certain other instances. Rates between points in Florida, and the intrastate rates in Virginia are both higher and lower than the Royster Scale. The carriers do not, however, seek to convey the impression that, taken as a whole, the rates in the South are today higher than the Royster Scale—it is merely claimed that numerous reductions will be effected through its uniform application. About 70 per cent of the tonnage of fertilizer and fertilizer materials moving in the southeast is intrastate traffic, and the intrastate rates in the several southeastern States are compared below with the carriers' proposed scale:

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| Distance (Miles) | Va. (a) (a) | N. C. | S. C. | Ga. | Fla. (b) | Ala. | Miss. (c) | La. (d) | Tenn. (e) | Ky. | Carriers' proposed scale |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 45 | 90 | 90 | 68 | 147 | 80 | 90 | 90 | 135 | 90 | 90 |
| 10 | 45 | 102 | 90 | 102 | 147 | 90 | 100 | 102 | 135 | 90 | 102 |
| 25 | 102 | 147 | 120 | 124 | 169 | 120 | 100 | 102 | 147 | 113 | 147 |
| 50 | 169 | 180 | 169 | 158 | 203 | 145 | 100 | 102 | 169 | 169 | 180 |
| 75 | 203 | 214 | 198 | 180 | 237 | 170 | 120 | 113 | 203 | 225 | 214 |
| 100 | 225 | 259 | 228 | 214 | 259 | 195 | 140 | 147 | 225 | 259 | 259 |
| 125 | 259 | 270 | 258 | 259 | 282 | 225 | 180 | 180 | 225 | 259 | 270 |
| 150 | 259 | 293 | 288 | 282 | 293 | 245 | 220 | 214 | 259 | 259 | 293 |
| 175 | 293 | 327 | 307 | 304 | 315 | 275 | 260 | 248 | 259 | 270 | 327 |
| 200 | 304 | 338 | 327 | 315 | 315 | 295 | 280 | 259 | 282 | 282 | 338 |
| 225 | 315 | 360 | 337 | 338 | 315 | 325 | 320 | 259 | 282 | 293 | 360 |
| 250 | 349 | 372 | 337 | 349 | 327 | 345 | 350 | 270 | 282 | 315 | 372 |
| 275 | 394 | 394 | 337 | 360 | 327 | 365 | 370 | 282 | ... | 315 | 394 |
| 300 | 405 | 405 | 337 | 383 | 327 | 375 | 400 | 293 | ... | 327 | 405 |
| 350 | 450 | 450 | ... | 439 | 338 | 405 | ... | ... | ... | ... | 450 |
| 400 | 495 | 484 | ... | 462 | 349 | 425 | ... | ... | ... | ... | 484 |
| 450 | 518 | 518 | ... | 484 | 360 | 455 | ... | ... | ... | ... | 518 |
| 500 | 552 | 551 | ... | ... | 360 | 475 | ... | ... | ... | ... | 552 |

[fol. 941] (a) Scale 1 of the Southern Railway, applicable south of Richmond and Danville, apparently the lowest scale in the state, but which the shippers say is fairly representative of Virginia rates.

(b) In Florida, fertilizer materials take 75 per cent of fertilizer rates.

(c) The intrastate rates in Mississippi are not uniform via all lines. Those shown are in effect via the Illinois Central, and up to and including 170 miles are the same as those published by the Mobile & Ohio, New Orleans & Northeastern, St. Louis & San Francisco and Gulf, Mobile and Northern. Beyond 170 miles, the rates are lower than shown via the Yazoo & Mississippi Valley, Mobile & Ohio and the Gulf, Mobile & Northern, the other lines mentioned not maintaining rates for the longer distances. The rate via the Y. & M. V. for 300 miles is $2.93, and via the G. M. & N., $2.60.

(d) East of the Mississippi River.

(e) From Chattanooga, Tenn., to Southern Railway Stations; there are other scales in effect in the state that are on a higher basis.

The carriers attempt to show that their proposed scale is lower than the average of the intrastate rates in Texas, Missouri, Oklahoma, Arkansas, and Louisiana west of the Mississippi River. The shippers' challenge the correctness of the Arkansas rates and certain of the Louisiana rates. As stated by them, and their showing appears to be correct, the carriers' proposed scale is higher than the average of these intrastate rates except for 180 miles and over, and except for the shorter distances of 10 miles and under. The rates in Texas, Arkansas, and western Louisiana are, as a rule, lower than the proposed scale for distances of from 15 to 170 miles and the rates in Missouri are, in most cases, lower except for the shorter distances up to 40 miles. In Oklahoma, where a higher basis is maintained, there was but one fertilizer manufacturing plant in

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[1] The term "shippers" as used in this report should be understood to include, generally, the agricultural, manufacturing, and other interests as distinguished from the carriers.

1924, and the estimated consumption amounted to but 3,000 tons. The intrastate rates of the States north of the Ohio River, including New York, Pennsylvania, Michigan [fol. 942] and Wisconsin, are also set forth to show the relative reasonableness of the carriers' proposed scale. These rates are, in most cases, the sixth-class rates which were prescribed in the C. F. A. Class Scale Case. The proposed rates are lower than those shown, except in Illinois for distances over 50 miles. At 100 miles, the Illinois scale is 39 cents per ton under the carriers' rate for that distance, and at 300 miles, 75 cents less than the carriers' proposed rate. The record indicates, however, that in official territory fertilizer moves to quite an extent on specific commodity rates, and many of these as well as the class rates are blanketed over rather extensive groups.

The carriers cite many rates from various manufacturing points to destinations in official territory. They are far too numerous to set out in any detail, but are generally higher than the proposed scale, and in many cases substantially higher. The following examples are thought to be fairly representative:

| From Baltimore, Md., to | Distance (Miles) | Rate | Carriers' proposed scale |
|---|---|---|---|
| Harpers Ferry, W. Va. | 80 | $3.70 | $2.25 |
| Harrisburg, Pa. | 96 | 3.20 | 2.59 |
| Martinsburg, W. Va. | 98 | 3.80 | 2.59 |
| Cumberland, Md. | 176 | 4.70 | 3.27 |
| Manunka Chunck, N. J. | 204 | 4.40 | 3.49 |
| Grafton, W. Va. | a278 | 5.00 | 3.94 |
| Ridgeway, Pa. | b326 | 4.50 | 4.39 |
| East Liverpool, Ohio | 361 | 5.10 | 4.62 |
| Cadiz, Ohio | 403 | 6.40 | 4.95 |
| Lockwood, Ohio | 405 | 5.80 | 4.95 |
| Meadville, Pa. | 429 | 5.10 | c5.40 |
| Zanesville, Ohio | 453 | 6.40 | 5.18 |
| Port Henry, N. Y. | 453 | 6.00 | c5.52 |

a. This rate is blanketed from Keyser, W. Va., 199 miles, to Long Run, W. Va., 319 miles.

b. This rate is blanketed over the entire Renovo Division of the Pennsylvania from Renovo, Pa., to Erie, Pa., involving hauls of from 249 to 445 miles.

c. Joint-line rates.

[fol. 943]

| From Philadelphia, Pa., to | Distance (Miles) | Rate | Carriers' proposed scale |
|---|---|---|---|
| Leslie, Md. | 50 | $2.60 | $1.80 |
| Aberdeen, Md. | 65 | 3.10 | 2.03 |
| Lansdowne, Md. | 103 | 3.20 | 2.59 |
| Martinsburg, W. Va. | 196 | 4.40 | 3.38 |
| Green Springs, W. Va. | 260 | 5.00 | 3.83 |
| Cumberland, Md. | 272 | 5.00 | 3.94 |
| **From Syracuse, N. Y., to** | | | |
| Geneva, N. Y. | 51 | 2.30 | 1.92 |
| Fonda, N. Y. | 104 | 2.90 | 2.59 |
| Albany, N. Y. | 158 | 3.20 | 3.15 |
| Germantown, N. Y. | 196 | 3.80 | 3.38 |
| Peekskill, N. Y. | 249 | 4.30 | 3.72 |

Supplementing the above, the carriers refer to a number of decisions by this commission in which it is said, in substance, that the more favorable transportation conditions and the greater traffic density north of the Ohio River warrant a lower level of rates in that territory than in the south.*

The shippers combat this showing by exhibiting the fertilizer rates that were in effect in the north prior to the five per cent increase as compared with the rates prescribed in the Royster case, to show that the respective levels were as of that period about the same, and that in many cases the rates in the north were the lower. A few illustrations are set forth below:

[fol. 944]

| From Baltimore to | Distance (miles) | Rates prior to 5 per cent increase | Royster scale as of April 29, 1918 |
|---|---|---|---|
| Harpers Ferry, W. Va. | 80 | $1.90 | $1.60 |
| Harrisburg, Pa. | 96 | 1.75 | 1.80 |
| Hancock, W. Va. | 121 | 2.00 | 1.95 |
| Cumberland, Md. | 176 | 2.20 | 2.30 |
| Williamsport, Pa. | 197 | 2.00 | 2.40 |
| Elmira, N. Y. | 273 | 2.40 | 2.80 |
| Canandaigua, N. Y. | 341 | 2.60 | 3.20 |
| Parkersburg, W. Va. | 382 | 3.00 | 3.40 |

* Sugar Cases of 1922, 81 I. C. C. 448, 469-470.
Commercial Club of Carrollton, Ky. v. Director General, et al., 55 I. C. C. 697, 700; and others.

| From Philadelphia to | Distance (miles) | Rates prior to 5 per cent increase | Royster scale as of April 29, 1918 |
|---|---|---|---|
| Leslie, Md. | 50 | 1.25 | 1.30 |
| Lansdowne, Md. | 103 | 1.60 | 1.85 |
| Martinsburg, W. Va. | 196 | 2.20 | 2.40 |
| Green Springs, W. Va. | 260 | 2.60 | 2.70 |
| Cumberland, Md. | 272 | 2.60 | 2.80 |
| St. Marys, Pa. | 325 | 2.60 | 3.10 |
| **From Syracuse to** | | | |
| Geneva, N. Y. | 51 | 1.10 | 1.35 |
| Ponda, N. Y. | 104 | 1.30 | 1.85 |
| Albany, N. Y. | 158 | 1.60 | 2.20 |
| Germantown, N. Y. | 196 | 1.90 | 2.40 |
| Peekskill, N. Y. | 249 | 2.10 | 2.65 |

The shippers further show that many of the rates on fertilizer materials in official territory are in fact lower at the present time than the scale proposed by the carriers, and particular attention is directed to the rate on acid phosphate, this being frequently used, it is said, as a complete fertilizer in the northern territory. The rates on these materials are blanketed over long distances; for example, the rate from Baltimore of $4.60 on nitrate of soda applies for distances of from 217 to 421 miles, and the rate of $3.20 on acid phosphate from Baltimore to points in trunk line territory applies for distances of from 146 to 433 miles. The [fol. 945] joint-line rates in this territory seem to be on the same level as the single-line rates. Under the Royster Scale the rates for these distances are as follows:

| Distance (miles) | Single-line rates | Joint-line rates |
|---|---|---|
| 146 | $2.93 | $3.27 |
| 217 | 3.49 | 3.83 |
| 421 | 5.07 | 5.40 |
| 433 | 5.07 | 5.40 |

It will be seen from the foregoing that the joint-line Royster Scale rate of $5.40 for 433 miles exceeds the rate on acid phosphate in trunk line territory for a similar distance by $2.20. The shippers do not contend, however, that the general level of fertilizer rates in the north is at present lower than the Royster Scale, but on the contrary it is admitted that, as a general proposition, the reverse is true.

It is urged, however, that the reversal of the previous relationship has been brought about through the greater aggregate general increases allowed in official territory, beginning with the five per cent increase in 1915, and that the relative high level of fertilizer rates in this northern territory is due to the comparative unimportance of the traffic in the past. It is shown that in the States of Ohio, Indiana, Illinois, and Michigan but 379,000 tons were consumed in 1909. It is pointed out, however, that as time has gone on fertilizer has been increasingly used in central territory, and that in the States named 655,000 tons were consumed in 1924. In this connection attention is directed to a complaint filed with this commission by the Ohio Farm Bureau Federation in May, 1924, Docket No. 15912, attacking the rates on fertilizer in central territory and asking for the establishment of rates made 80 per cent of the present rates, and also to a similar complaint filed in November of the same year by the National Fertilizer Association, Docket No. 16494, asking for rates made 75 per cent of the sixth-class rates. The former basis results in rates somewhat higher than the Royster Scale for 90 miles and under, and lower than that scale for distances over 90 miles. At 100 miles, the Royster Scale rate is $2.59, and 80 per cent of the sixth-class rate in central territory for that distance is [fol. 946] $2.40. Counsel for the carriers sought to develop why, if 80 per cent of the sixth-class rates in central territory was considered proper, that basis should not also be used in the southeast. It appears, however, that sixth class is relatively a much lower class in central than in southern territory, and that the class rates in general in the former territory are better adapted to the movement of carload traffic than in the latter.

Numerous comparisons were submitted by the carriers contrasting the past and present fertilizer rates in Tennessee with those proposed. Although the proposed rates would bring about many reductions below the present basis, nevertheless increased rates would result in the majority of cases. It is pointed out, however, that these increases would occur to a great extent in those rates that were reduced under the commission's findings in I. & S. 1303, 64 I. C. C. 306, decided November 15, 1921, and that as compared with the rates in effect prior to the revision in that proceeding, the proposed scale would result in many reduc-

tions where now increases are shown. Somewhat similar comparisons are made with respect to rates from Memphis and the Ohio River crossings to points in Mississippi Valley territory. The proposed rates are, in most cases, considerably in excess of the rates which have resulted from the commission's finding in I. & S. 1303, but it is contended that these latter rates were not prescribed as reasonable maximum rates, but primarily for the purpose of removing fourth-section departures. Attention is directed to statements to this effect appearing in Jackson Paper Co. v. A. & V. Ry. Co., 87 I. C. C. 529; St. Louis Merchants Exchange v. A. & R. R. R. Co., 87 I. C. C. 547, and other cases. In I. & S. 1303, a base rate of $5.80 was prescribed on fertilizer from St. Louis, Mo., and Louisville, Ky., to New Orleans as a maximum, the rate today being $5.20. The distance to New Orleans from St. Louis is 698 miles and from Louisville 747 miles.

The carriers set forth many rates east of the Mississippi River principally in the southeast, in effect on various commodities, for the purpose, mainly, of showing that the car and car-mile revenue are in almost every instance higher than the revenue on fertilizer under the proposed rates [fol. 947] based on the average loading. These comparisons include rates on coal, cement, crushed stone, slag, scrap iron, asphaltum, blackstrap molasses, sulphuric acid, roofing slate, salt, petroleum, manufactured iron, asphalt rock, lumber, wall plaster, and pig iron. Not only are the rates shown in many cases higher than the rates which the carriers are proposing on fertilizer, but on every commodity but two, coal and crushed stone, the car-mile earnings exceed those under the fertilizer rates, and in many instances by substantial amounts. And even on coal and crushed stone the earnings are, in the great majority of cases, higher than under the fertilizer rates. In the following table are shown what are believed to be representative rates on three of the commodities mentioned for distances of approximatly 50, 100, 150 and 200 miles. The fertilizer rates shown for single-line hauls, except where reference "J" to indicate joint-line service.

[fol. 948]

Coal

| From | To | Distance (miles) | Rate | Car-mile rev. (cents) | Carriers' proposed rates on fertilizer | Car-mile rev. (cents) |
|---|---|---|---|---|---|---|
| Jellico, Tenn | E. Bernstadt, Ky | 50 | $1.13 | 109 | $1.80 | 87 |
| Birmingham, Ala | Tuscaloosa, Ala | 55 | 1.19 | 104 | 1.92 | 85 |
| Birmingham, Ala | Bluffton, Ala | 100 | 1.70 | 82 | 2.59 | 63 |
| Western Kentucky | Madison, Tenn | 104 | 1.35 | 62 | 2.59 | 60 |
| Birmingham | Columbus, Ga | 157 | 1.92 | 62 | 3.15 | 42 |
| Glenmary, Tenn | Asheville, N. C | 199 | 2.54 | 62 | 3.72(J) | 46 |
| Clifty, Tenn | Tennessee, City, Tenn | 198 | 2.03 | 45 | 3.38 | 42 |

The car-mile earnings on coal are based on average loadings of from 44.4 to 51 tons, and those on fertilizer of from 21 to 24.5 tons.

## Cement

| | Distance (miles) | Rate | Car-mile rev. (cents) | Carriers' proposed rates on fertilizer | Car-mile rev. (cents) |
|---|---|---|---|---|---|
| C. F. A. Rates (a) | 50 | 1.60 | 128b | 1.80 | 83c |
| North Carolina intrastate scale | 50 | 2.00 | 144d | 1.80 | 83c |
| North Carolina intrastate scale | 100 | 2.60 | 94d | 2.59 | 60c |
| C. F. A. Rates (a) | 100 | 1.90 | 76b | 2.59 | 60c |
| Norfolk, Va., to Tarboro, N. C. | 100 | 2.70 | 72e | 2.59 | 54f |
| Norfolk, Va., to Kinston, N. C. | 149 | 3.20 | 58e | 2.93 | 41f |
| North Carolina intrastate scale | 150 | 2.80 | 67d | 2.93 | 45c |
| C. F. A. Rates (a) | 150 | 2.30 | 61b | 2.93 | 45c |
| C. F. A. Rates | 200 | 2.50 | 50b | 3.38 | 39c |
| North Carolina intrastate scale | 200 | 3.00 | 54d | 3.38 | 39c |

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[fol. 949] (a) Prescribed in Atlas Portland Cement Co. v. C., B. & Q. R. R. Co., 81 I. C. C. 1, from St. Louis and Hannibal, Mo., to points in Illinois, from Hannibal to points in Indiana, and from Buffington, Ind., to points in Illinois.

(b) Based on average loading of 40 tons.
(c) Based on average loading of 23 tons.
(d) Based on average loading of 36 tons.
(e) Based on average loading of 26.9 tons.
(f) Based on average loading of 21 tons.

## Sulphuric Acid

| From | To | Distance (miles) | Rate | Car-mile rev. (cents) | Carriers' proposed rates on fertilizer | Car-mile rev. (cents) |
|---|---|---|---|---|---|---|
| Copper Hill, Tenn., | to Andrews, N. C | 51 | $2.45 | 231 | $2.14J | 97 |
| Copper Hill, Tenn., | to Marietta, Ga | 96 | 2.50 | 125 | 2.59 | 62 |
| Copper Hill, Tenn., | to Knoxville, Tenn | 107 | 2.10 | 94 | 2.59 | 56 |
| Copper Hill, Tenn., | to Rome, Ga | 152 | 2.50 | 79 | 3.38J | 51 |
| Copper Hill, Tenn., | to Macon, Ga | 205 | 3.10 | 73 | 3.72J | 42 |
| Grasselli, Ala., | to Hampton, Ga | 206 | 3.49 | 81 | 3.72J | 42 |

The car-mile earnings on sulphuric acid are based on an average loading of 48 tons, and those on fertilizer on an average loading of 23 tons.

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[fol. 950] In connection with the rates on sulphuric acid, the carriers direct attention to the statement made in International Agricultural Corp. v. L. & N. R. R. Co., 22 I. C. C. 488, 493, as follows:

As a result of the discussion the carriers seem finally to have taken the position that rates on sulphuric acid should be substantially the same as the fertilizer rate, upon the theory, apparently, that the completed fertilizer comes into competition with the acid.

To this idea we can not subscribe. So far as the case shows, fertilizer does not compete with sulphuric acid nor is it manufactured at the point where this acid originates. The value of the fertilizer distributed throughout the south is from $15 to $20 per ton at the plant. The value of this sulphuric acid is $5 per ton at the point of origin. It is strictly a raw material and we think that distinctly lower rates should be applied for the transportation of these commodities from the point of origin to point where they are finally used than that upon the manufactured fertilizer.

It will be observed that most of the commodities with which comparisons are made load much heavier than does fertilizer, and the carriers contend that it costs little if any more to handle a carload of this heavy traffic than it does to handle a carload of fertilizer. In this connection the shippers claim that the per-car revenue on coal is, as a rule, greater than that on almost any other article. This claim was questioned by the carriers, but no examples could be given at the time of commodities producing higher earnings. In any event, it should be borne in mind that on a per-train basis a greater number of carloads of fertilizer could be handled than of coal, and there is no doubt but that a carload of coal displaces a greater tonnage of miscellaneous freight than does a carload of fertilizer, and in many cases might preclude the contemporaneous handling of the other more valuable but lighter traffic. In other words, too much weight should not be given to the car-mile earnings on these heavy commodities—other transportation elements, such as ton-mile earnings, must be taken into consideration. If the rates on lighter loading commodities were adjusted, because of their value, so as to produce per-car returns higher than on this heavy-loading but lower-grade traffic, the rates [fol. 951] on the former would be in many cases inordinately high. For example, in order for the transportation

of cattle to be as remunerative on a per-car basis as that of cement in central territory, the rates on the former would have to be around 38 cents per 100 pounds for a haul of 100 miles, instead of 19 cents as proposed in the scale approved in Live Stock to, from, and between Points in Southeast, 74 I. C. C. 419. Moreover, it should not be overlooked that the carriers propose to maintain a minimum carload weight of not less than 20 tons (40,000 pounds) on most of the fertilizer materials, and it is probably safe to assume that the actual loading exceeds this minimum. A witness for the shippers stated that his investigation showed that shipments of materials moving to fertilizer plants averaged 35 tons, and in New Orleans Joint Traffic Bureau v. A. & V. Ry. Co., 89 I. C. C. 223, it is said that the actual loading of nitrate of soda exceeds 25 tons.

The carriers direct attention to the seasonal character of the fertilizer movement, practically 50 per cent of the yearly tonnage moving during the months of March and April, and they assert that this is one of the most strenuous traffic periods of the southeastern roads. Because the bulk of the tonnage must needs be transported during a limited period, the expense of handling it, it is claimed, is greater than it otherwise would be. In this connection it is pointed out that at the more important manufacturing points it is necessary, at the beginning of the season, to assemble a considerable number of empty cars in anticipation of the movement. The principal shipping points are said to be located at terminals where the outbound business exceeds the inbound, and therefore it is necessary to bring in empty equipment. At Charleston, where there are located 14 plants, some 600 cars are accumulated at the opening of the shipping season, and as many as three to four hundred are kept on hand to take care of the needs at that point. A study made at Charleston covering the period from December, 1923, to April, 1924, disclosed that the average delay to cars at that point was 7 days per car. The expense of switching to and from the plants is claimed to be heavy, and in this connection attention is directed to the showing made by the carriers in South Carolina Fares and [fol. 952] Charges, 60 I. C. C. 290, 301, to the effect that this cost at Charleston approximated $5.94 per car. During the height of the season there are employed in switching to and

from the fertilizer plants at that point 7 extra engines and crews and other necessary help, the cost of which is said to approximate $14,200 per month. These conditions seem to obtain principally at Charleston and Savannah, Ga., and to some extent at Norfolk, Va., and at a few interior points, but the situation at Charleston was the only one on which particular emphasis was laid. The shippers attempted to bring out, and with some success, that the fertilizer movement occurs at a time when other traffic is not heavy and when there is to some extent a surplus of equipment. It seems to be conceded by the carriers that contemporaneously there is at least no peak movement of any other commodity.

Some testimony was offered by the carriers with respect to the contaminating effect which mixed fertilizer has on the cars in which it is transported. They contend that because of the odor many commodities cannot be loaded in cars that have been used for fertilizer traffic until some time has elapsed and the cars have been cleaned. Tobacco and sugar are particularly susceptible to contamination, and grain and other commodities have also been known to have been damaged. Just how serious this feature is in actual practice is not satisfactorily disclosed. The carriers emphasize and the shippers minimize its importance. The latter point to the many commodities that would not be affected, and claim that for the most part the materials have little or no offensive odor, which seems to be true. However, it was stated by one of the shippers' own witnesses that about 70 per cent of mixed fertilizer contains tankage or fish scrap or both, and has a decided odor.

## The Shippers' Proposal

The shippers' side of the case was presented largely by representatives of manufacturing organizations, members of the National Fertilizer Association. The Alabama Public Service Commission also took an active and important part in support of the rates and principal contentions advanced by the shipping interests. Testimony was offered [fol. 953] on behalf of the Kentucky Railroad Commission, a statement was made by one of the North Carolina Commissioners, and helpful cross-examination was conducted by members of the Florida, Georgia and Mississippi Com-

missions. The manufacturers are one with the carriers in urging uniformity in the rates, and in fact no interest advocated a different theory. The predominant issue raised by the shippers is with respect to the level of the rates. They contend that the Royster Scale was discarded by this commission in its decision in Blackshear Mfg. Co. v. A. C. L. R. R. Co., 87 I. C. C. 654, involving rates on fertilizer from Blackshear, Ga., to points in Florida, and in support of this contention quote from page 662 of that decision as follows:

> The cases * * * in which the Royster scale was prescribed or approved were decided on the records then before us and solely for the purpose of disposing of the very narrow issues which those cases presented. It does not follow that the same scale should be accepted as the final measure of rates to be applied generally throughout the Southeast or that the rates from Georgia to southern Florida should be constructed by superimposing upon that scale an increase to reflect the less favorable transportation conditions in southern Florida.

They point also to the further statement made at page 663 of the report in that proceeding, namely:

> It has been generally recognized for years that transportation conditions in the Southeast do not warrant any higher basis of rates than in the Southwest, and rates in the Southeast are in many cases lower than in the Southwest. The 9702 Memphis-Southwestern Investigation, 77 I. C. C. 473, fertilizer scale was prescribed or approved in a comprehensive proceeding for application, intrastate and interstate, in Arkansas and between Arkansas, southern Missouri, and western Louisiana, and presents a fairer guide for determining maximum rates on fertilizer from Blackshear to Florida points than does the Royster scale which was originally prescribed for traffic moving between comparatively few points in the Southeast.

[fol. 954] These statements, it is urged, warranted the Alabama Commission, when it had the matter of fertilizer rates before it in 1924, in accepting the scale prescribed in Docket No. 9702 as representing reasonable maximum rates in the Southwest, and in holding that something lower might appropriately be adopted east of the Mississippi

River. The greater fertilizer tonnage moving in Alabama was also given consideration. That commission accordingly promulgated rates which averaged 87.3 per cent of the single-line rates and 89.1 per cent of the joint-line rates prescribed in the Memphis-Southwestern Investigation. But instead of adopting the minimum weight of 15 tons prescribed in that case on mixed fertilizer, the Alabama Commission, because of the average loading in that State, adopted a minimum of 20 tons. Wherever the minimum on materials was less than 40,000 pounds, it was increased to that loading, except in the case of cottonseed hulls which was continued at 15 tons. The rates, as well as the minimum weight, which the shippers now propose are the same as those prescribed by the Alabama commission, and are as follows:

| Miles | Shippers' proposed single line rates | Revenue per ton-mile (a) (Cents) | Revenue per car-mile (a) (b) (Cents) | Shippers' proposed joint line rates | Revenue per ton-mile (a) (Cents) | Revenue per car-mile (a) (b) (Cents) |
|---|---|---|---|---|---|---|
| 5 and under | $.80 | 16. | 320. | | | |
| 10 and over 5 | .90 | 9. | 180. | $1.20 | 12. | 240. |
| 15 " " 10 | 1.00 | 6.7 | 133. | 1.30 | 8.6 | 173. |
| 20 " " 15 | 1.10 | 5.5 | 110. | 1.40 | 7. | 140. |
| 25 " " 20 | 1.20 | 4.8 | 96. | 1.50 | 6. | 120. |
| 30 " " 25 | 1.25 | 4.17 | 88.3 | 1.55 | 5.17 | 103. |
| 35 " " 30 | 1.30 | 3.71 | 74.2 | 1.60 | 4.57 | 91.4 |
| 40 " " 35 | 1.35 | 3.37 | 67.5 | 1.65 | 4.13 | 82.5 |
| 45 " " 40 | 1.40 | 3.11 | 62.2 | 1.70 | 3.78 | 75.6 |
| 50 " " 45 | 1.45 | 2.9 | 58. | 1.75 | 3.5 | 70. |
| 55 " " 50 | 1.50 | 2.73 | 54.5 | 1.80 | 3.27 | 65.5 |
| 60 " " 55 | 1.55 | 2.58 | 51.7 | 1.85 | 3.08 | 61.7 |
| 65 " " 60 | 1.60 | 2.46 | 49.2 | 1.90 | 2.92 | 58.5 |
| 70 " " 65 | 1.65 | 2.36 | 47.1 | 1.95 | 2.78 | 55.7 |
| 75 " " 70 | 1.70 | 2.27 | 45.3 | 2.00 | 2.67 | 55.3 |
| 80 " " 75 | 1.75 | 2.19 | 43.8 | 2.05 | 2.56 | 51.3 |
| 85 " " 80 | 1.80 | 2.12 | 42.4 | 2.10 | 2.47 | 49.4 |
| 90 " " 85 | 1.85 | 2.06 | 41.1 | 2.15 | 2.39 | 47.8 |
| 95 " " 90 | 1.90 | 2. | 40. | 2.20 | 2.32 | 46.3 |
| 100 " " 95 | 1.95 | 1.95 | 39. | 2.25 | 2.25 | 45. |
| 110 " " 100 | 2.05 | 1.86 | 37.3 | 2.35 | 2.14 | 42.7 |
| 120 " " 110 | 2.15 | 1.79 | 35.8 | 2.45 | 2.04 | 40.8 |

[fol. 956]

| Miles | Shippers' proposed single line rates | Revenue per ton-mile (a) (Cents) | Revenue per car-mile (a) (b) (Cents) | Shippers' proposed joint line rates | Revenue per ton-mile (a) (Cents) | Revenue per car-mile (a) (b) (Cents) |
|---|---|---|---|---|---|---|
| 130 and over 120 | 2.25 | 1.73 | 34.6 | 2.55 | 1.96 | 39.2 |
| 140 " " 130 | 2.35 | 1.68 | 33.6 | 2.65 | 1.89 | 37.9 |
| 150 " " 140 | 2.45 | 1.63 | 32.7 | 2.75 | 1.83 | 36.7 |
| 160 " " 150 | 2.55 | 1.59 | 31.9 | 2.75 | 1.72 | 34.4 |
| 170 " " 160 | 2.65 | 1.56 | 31.2 | 2.85 | 1.68 | 33.5 |
| 180 " " 170 | 2.75 | 1.53 | 30.6 | 2.95 | 1.64 | 32.8 |
| 190 " " 180 | 2.85 | 1.5 | 30. | 3.05 | 1.61 | 32.1 |
| 200 " " 190 | 2.95 | 1.48 | 29.5 | 3.15 | 1.58 | 31.5 |
| 210 " " 200 | 3.05 | 1.45 | 29. | 3.25 | 1.55 | 31. |
| 220 " " 210 | 3.15 | 1.43 | 28.6 | 3.35 | 1.52 | 30.5 |
| 230 " " 220 | 3.25 | 1.41 | 28.3 | 3.45 | 1.5 | 30. |
| 240 " " 230 | 3.35 | 1.4 | 27.9 | 3.55 | 1.48 | 29.6 |
| 250 " " 240 | 3.45 | 1.38 | 27.6 | 3.65 | 1.46 | 29.2 |
| 260 " " 250 | 3.55 | 1.37 | 27.3 | 3.75 | 1.44 | 28.8 |
| 280 " " 260 | 3.65 | 1.3 | 26.1 | 3.85 | 1.38 | 27.5 |
| 300 " " 280 | 3.75 | 1.25 | 25. | 3.95 | 1.32 | 26.3 |
| 320 " " 300 | 3.85 | 1.2 | 24.1 | 4.05 | 1.27 | 25.3 |
| 340 " " 320 | 3.95 | 1.16 | 23.2 | 4.15 | 1.22 | 24.4 |
| 360 " " 340 | 4.05 | 1.13 | 22.5 | 4.15 | 1.15 | 23.1 |
| 380 " " 360 | 4.15 | 1.09 | 21.8 | 4.25 | 1.12 | 22.4 |
| 400 " " 380 | 4.25 | 1.06 | 21.3 | 4.35 | 1.09 | 21.8 |
| 420 " " 400 | 4.35 | 1.04 | 20.7 | 4.45 | 1.06 | 21.2 |

[fol. 957]

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 440 | " | " | 420 | 4.45 | 1.01 | 20.2 | 4.55 | 1.03 | 20.7 |
| 460 | " | " | 440 | 4.55 | .99 | 19.8 | 4.65 | 1.01 | 20.2 |
| 480 | " | " | 460 | 4.65 | .97 | 19.4 | 4.75 | .99 | 19.8 |
| 500 | " | " | 480 | 4.75 | .95 | 19. | 4.85 | .97 | 19.4 |
| 525 | " | " | 500 | 4.85 | .92 | 18.5 | 4.85 | .92 | 18.5 |
| 550 | " | " | 525 | 4.95 | .9 | 18. | 4.95 | .9 | 17. |
| 575 | " | " | 550 | 5.05 | .88 | 17.6 | 5.05 | .88 | 17.6 |
| 600 | " | " | 575 | 5.15 | .86 | 17.2 | 5.15 | .86 | 17.2 |
| 625 | " | " | 600 | 5.25 | .84 | 16.8 | 5.25 | .84 | 16.8 |
| 650 | " | " | 625 | 5.35 | .82 | 16.5 | 5.35 | .82 | 16.5 |
| 675 | " | " | 650 | 5.45 | .81 | 16.2 | 5.45 | .81 | 16.2 |
| 700 | " | " | 675 | 5.55 | .79 | 15.9 | 5.55 | .79 | 15.9 |
| 725 | " | " | 700 | 5.65 | .79 | 15.6 | 5.65 | .79 | 15.6 |
| 750 | " | " | 725 | 5.75 | .77 | 15.3 | 5.75 | .77 | 15.3 |
| 775 | " | " | 750 | 5.85 | .76 | 15.1 | 5.85 | .76 | 15.1 |
| 800 | " | " | 775 | 5.95 | .74 | 14.9 | 5.95 | .74 | 14.9 |
| 825 | " | " | 800 | 6.00 | .73 | 14.5 | 6.00 | .73 | 14.5 |
| 850 | " | " | 825 | 6.05 | .71 | 14.2 | 6.05 | .71 | 14.2 |
| 875 | " | " | 850 | 6.10 | .70 | 13.9 | 6.10 | .70 | 13.9 |
| 900 | " | " | 875 | 6.15 | .68 | 13.7 | 6.15 | .68 | 13.7 |
| 925 | " | " | 900 | 6.20 | .67 | 13.4 | 6.20 | .67 | 13.4 |
| 950 | " | " | 925 | 6.25 | .66 | 13.2 | 6.25 | .66 | 13.2 |
| 975 | " | " | 950 | 6.30 | .65 | 12.9 | 6.30 | .65 | 12.9 |
| 1000 | " | " | 975 | 6.35 | .64 | 12.7 | 6.35 | .64 | 12.7 |

(a) The earnings shown are based on the greatest mileage in the individual blocks.
(b) Based on minimum carload weight of 40,000 pounds.

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[fol. 958] For convenient reference the Memphis-Southwestern scale is shown in Appendix D.

Like the carriers, the shippers urge their scale for uniform application throughout the southeast,—no contention is made that different rates should apply in different sections. They do contend, however, that the strict distance scale should be departed from in a few cases. One situation is that existing at Atlanta. Here there are various manufacturing plants in the outlying districts, and it is the thought that these plants should be grouped, the average distance from the group fixing the rates to be used. Other similar situations should be similarly treated. Neither should the distance scale, it is said, be applied on certain materials. For example, sulphate of ammonia is produced in the southeast only in the Birmingham district, and rates should be adjusted on this commodity, it is suggested, in competition with rates from the steel mills in the north. But on the whole, the shippers favor the strict observance of a distance scale.

One of the shippers' principal witnesses admitted that the rates proposed by them are, with the exception of rates in Mississippi and for short distances in Georgia, lower than any other fertilizer rates in the south which have been prescribed either by this commission of by the State Commissions. The low basis of rates in Mississippi is due, the carriers say, to two causes: (1) to the extremely low rates originally established by the carriers operating in that section to encourage agricultural development, and (2) to the rates suggested or prescribed by the Mississippi commission. Attention is called to the fact that during a period of over 25 years, the only revisions made in the fertilizer rates in Mississippi have been those occasioned by the general rate cases.

Many individual cases are shown by a witness for the Alabama commission where the shippers' proposed scale will result in inreased rates. These include rates from the principal points in Georgia and from Chattanooga, Tenn., to destinations in Alabama, and from Nashville and Memphis, Tenn., to points in both Alabama and Georgia. Out of 69 rates shown from Atlanta, 41 would be increased under the shippers' proposed scale, and 27 reduced. Out of 74 rates from Nashville, 49 would be increased and 23 re- [fol. 959] duced. On the other hand, out of 6[illegible] rates shown

from Athens, Ga., only 14 would be increased while 48 would be reduced. Taking the showing as a whole, it is found that of over 700 rates set forth 46 per cent will be increased under their scale, the increases running anywhere from small amounts to as high as $1.30 per ton, the latter obtaining in the joint rate from Memphis to Tuscaloosa, Ala., 238 miles. The joint rate from Atlanta to Blocton, Ala., would also be increased as much as $1.12. Similar data by other witnesses was submitted covering rates from the same and a number of other points. For example, the present rates from Charleston, S. C., to points in Georgia on the Atlantic Coast Line and Atlanta & West Point were shown in many cases to be lower than the proposed scale. Likewise many of the present rates from Birmingham and Montgomery to points in Florida; from McCarty, Tenn., to destinations in Alabama, Mississippi and Tennessee, and from still other points, were shown to be on a lower basis than that proposed by the shippers. In fairness to the shippers it should be said that their exhibits also set forth many specific rates that are higher than their scale,—the attempt seems to have been made only to show that there are a goodly number of situations where rates are maintained on a lower basis than they are proposing. Rates from St. Louis, Memphis, and Nashville to points in Mississippi and to New Orleans and Mobile, established as the result of the commission's findings in I. & S. 1303, are also compared with the shippers' proposed scale. The rates shown from St. Louis and Nashville are in all cases but two lower than the proposed scale, and the latter is lower in the great majority of cases than the rates from Memphis. As heretofore stated, however, the carriers contend that the rates prescribed in the foregoing proceeding were not fixed as reasonable maximum rates, and refer to expressions by us to that effect.

The shippers also compare their proposed scale with the rates on various commodities. Those on cabbage and potatoes, petroleum, cotton piece goods, and iron and steel articles are, in almost all cases, considerably in excess of their proposed rates. The rates shown on live stock between points in North Carolina are slightly higher, as are also the intrastate rates on cement in Georgia and Ala-
[fol. 960] bama. Rates lower than the proposed fertilizer

scale are shown to be in effect on cement from Birmingham to interstate destinations; on lumber from Georgia points to Birmingham and Chattanooga, and from Alabama points to Atlanta, Chattanooga, Memphis and Nashville; on coal from Dante, Va., to California territory, and from Jellico, Tenn., to southern points generally; on sand and gravel via various lines; and on brick from Chattanooga to Georgia points. Mention should be made of the fact that the rates on lumber are, in many cases, not only lower than the shippers' proposed scale, but, based on the minimum carload weights, produce lower car-mile earnings. Like similar comparisons of the carriers, the shippers' showing is not in any way decisive. It simply shows that there are rates on various commodities which are both higher and lower than the scales proposed by either the carriers or the shippers. The shippers admit, and in fact urge, that such comparisons are not entitled to great weight, by reason of the different methods used in making the respective adjustments, and because of the fact that in some cases the older systems of rate-making still govern.

The carriers contend that the Alabama scale, the basis of the shippers' proposed rates, is unduly low and has been influenced and governed by the rates fixed by the Georgia commission for application in the latter state. In 1907, the Alabama legislature passed a statute which, it is said, prescribed the same mileage scale of rates on fertilizer as was then in effect in the State of Georgia. This action, the carriers say, was taken without any public hearing and resulted in substantial reductions. This scale, subject to the subsequent general rate changes, remained in effect until July 25, 1924, when the Alabama commission promulgated the present intrastate scale, as heretofore explained, and which resulted in average reductions from the previous rates of about 7 per cent. The prior rate for 100 miles, for example, was $2.14, and the present rate is $1.95. For distances of from 240 to 310 miles, the reductions did not exceed 2 per cent, and, in fact, in this block there were four instances of slight increases.

The Railroad Commission of Georgia was established in 1879 and was the first body of this kind created in the south. [fol. 961] In 1880 that commission prescribed rates on fertilizer, any quantity, graded in 10-mile blocks from $1 for

the first 10 miles up to $3.40 for 350 miles. At 50 miles, the rate was $1.60, at 100 miles $2, and at 150 miles $2.20. The carriers emphasize that the Georgia commission, itself, subsequently held this scale to be too low, for in 1882 it increased the rates 20 per cent, and in explanation of this change made the following statement in its annual report for that year:

After a trial, covering a period of several months, the Commission believed that their standard rate for transportation of manufactured fertilizers was, at that time, too low. This resulted from the great expense to the railroads, consequent upon storage, detention of cars, etc. In view of this, the Commission concluded to temporarily advance the rates on fertilizer, * * *.

The carriers point out that the Georgia commission in 1884, regardless of the above admission, again reduced the rates on carload shipments to a basis that, for distances up to 80 miles, ranged from 4 to 28 cents per ton under the rates originally established in 1880, although slightly higher than those rates for distances over 80 miles. And they call attention to that commission's report for 1888 in which the low character of the rates was recognized in the following language:

We have prescribed low rates * * * for naval stores, for lumber, for all articles manufactured in the State and the raw material used in their manufacture, for cotton and other agricultural products, for provisions and fertilizers, and for the articles that enter into the daily wants of the people. We have thus endeavored to promote the railroad, the manufacturing, the agriculaural, the commercial and all the business interests of the State.

In 1890 the rates were again reduced approximately 16-2/3 per cent, and in 1897 about 10 per cent. In the latter year the rate for 10 miles was fixed at 72 cents, for 50 miles at $1.08, and for 100 miles at $1.53. The rates for the corresponding distances fixed by the Georgia commission in 1880 were, respectively, $1, $1.60, and $2. Changes were made at various times in the basis accorded the short lines [fol. 962] in that State and in the method of making joint rates, which it is unnecessary to set forth. The rates pre-

scribed in 1897, as modified by the subsequent general increases, are still in effect as maximum rates. And it is on this admittedly low scale, the carriers contend, that the Alabama rates were originally predicated, and these, in turn, are the basis for the shippers' proposed rates in this proceeding.

The answer of the shippers to the foregoing argument has already been indicated. It is in substance that the Alabama commission, when it adopted the present scale in 1924, took as its guide the Memphis-Southwestern scale prescribed by this commission for application in the southwest, and, because of statements made in the Blackshear and other cases relative to the respective rate levels and transportation conditions in the territories west and east of the Mississippi River, it adopted rates as much lower than the Memphis-Southwestern scale as it deemed warranted by the greater traffic density and other conditions obtaining in its State. Furthermore, the Alabama commission points to the fact that in the Blackshear case this commission prescribed the Memphis-Southwestern rates from Blackshear to points in Florida on and north of the Jacksonville-River Junction line for distances up to 240 miles, and even to points 155 miles south of Jacksonville the rates were made but 10 cents per ton higher than the Memphis-Southwestern scale. It must be admitted, they claim, that the transportation conditions into Florida are much less favorable than in Alabama, and the above distance of 240 miles well exceeds the average haul in the latter State.

As the position of the shippers is understood, however, not so much stress is laid on rate comparisons to sustain their proposed scale as upon the economic advantages accruing through the use of fertilizer, and the absolute need of its use in order that southern agriculture may be at all successful. Counsel for the principal shipping interests said, in part, in his opening statement:

> In the main, the shipper elements in the case have started with the presumption that * * * such a revision of rates as might result from this proceeding would at least involve no aggregate increase in the revenue yielded by the existing charges. Practically no evidence [fol. 963] will be directed as such to the sustaining of that premise or point of view which is the starting point in the

case, but rather the evidence will be directed more particularly to those phases in the case which conceivably in the point of view of the shippers' minds perhaps justify some consideration in the wind-up of an average rate level less than would be yielded by the existing transportation charges.

On brief he said:

* * * the issue is to be understood as consisting alone of divergent views as to what may be considered a logical and fair distribution of the total traffic burden as between fertilizer and other descriptions of freight.

The vice-president of the American Farm Bureau Federation stated that bureau's position in the following language:

We * * * respectfully ask this Commission to take into account the fact that in its work of gradually remaking the freight rate structure in this country the Commission should give a fair regard to the peculiar uses of different articles and so distribute the total transportation burden as will impose a fair relative part upon agriculture. In other words, in considering the proper disposition of this case involving as it does an article of direct importance in agriculture we urge the Commission to find from the evidence the extent to which sound national economy would justify the making of as low rates as consistently can be done on this particular article.

And one of the principal witnesses for the shipping interests stated at the outset of his testimony:

By reason of the fact that the traffic test* covering fertilizer has been made, not so much importance is to be attached to the comparison between various existing and proposed fertilizer rates. However, in the proceedings, the carriers presented numerous exhibits in which such comparisons were made. It seems at least justifiable to present

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*The traffic test covering the fertilizer movement which the carriers were asked to make will be referred to and discussed later.

in this record other comparisons, if for no other reason, [fol. 964] that the two sets of exhibits will enable the Commission, if it so desires, to locate the higher and lower rate areas.

From the foregoing, however, it is not to be understood that the shippers are urging the financial necessities of the southern farmers. Counsel states in his brief that "there is no clash as between impoverished railroads and destitute agriculturists"; that the conclusion in this proceeding need not "depend on any thought that Southern agriculture is undertaking to secure or expects a subsidy in the way of lower transportation charges upon fertilizer than would otherwise be warranted by sound considerations of economics and logical rate making."

While the condition of agriculture is not stressed as a ground for the special treatment of fertilizer rates, it is nevertheless of interest to note the testimony in this respect offered by the agricultural statistician of the Alabama Extension Service, who is also connected with the Federal Government. This witness stated that in 1924 the farmers of Alabama lacked $34,000,000 of receiving the full wage rate paid to farm workers, or about $130 per farm. In Georgia, the farmers lacked $112,000,000 of receiving the normal wage, or approximately $350 per farm. In contradistinction to this situation, he showed that the farmers in Texas and Oklahoma not only received the full wage rate, but a profit besides amounting to $81,000,000 in the former State, and to $84,000,000 in the latter. In these States it is pointed out that the soil requires little or no fertilization; and it was the view of this witness that if the southeastern farmer expects to compete successfully with cotton raisers in Texas and Oklahoma it would be necessary for the former substantially to increase his yield per acre, which can be done in no easier way than by the increased use of commercial fertilizers. It is his belief that around 4,000,000 tons of fertilizer could be profitably used in the State of Alabama alone, provided it could be bought at a reasonable price, instead of but 580,000 tons as used in 1925. In this connection, the shippers contend that since the item of labor is comparatively small in the manufacture of fertilizer, it is chiefly the combined cost of transportation, raw materials, and sales distribution which controls the prices.

[fol. 965] The prices of only a few of the principal raw materials are shown of record. Nitrate of soda is said to be worth from $50 to $60 per ton, but apparently not over 150 pounds is used in a ton of mixed fertilizer, and in many cases a much lesser amount, the balance of the ammonia or nitrogen content being supplied by tankage, sulphate of ammonia, cottonseed meal, etc. Imported potash salts ranged in 1924 from about $6 per ton for kainit to around $40 per ton for sulphate of potash. The potash salts in a ton of mixed fertilizer do not ordinarily exceed 15 per cent of the total weight. The average price of cottonseed meal at the southern markets in 1923 appears to have been slightly over $40 per ton, and at the time of the hearing in September, 1925, was said to be around $35. Acid phosphate, which makes up over 60 per cent of the weight of a ton of fertilizer, was shown to average about $12 per ton. The average inbound freight charges on fertilizer materials was shown to run from $1.96 per ton at Charleston, S. C., to $4.08 at Spartansburg, S. C., and the average outbound charges on the mixed fertilizers ranged from $1.545 from Hartsville, S. C., to $3.68 from Nashville, Tenn. The total inbound and outbound charges averaged from $4.48 at Mobile to $6.19 at Atlanta. As the cash price of mixed fertilizers ranges from $25 to $40 per ton, depending on the grade, it will be seen that the freight charges make up from about 12 to over 20 per cent of the total price asked.

The carriers minimize the importance of the freight charges so far as the farmer is concerned. They state, first, that the credit price exceeds the cash price by from 25 to 33⅓ per cent, and that many of the smaller farmers purchase their fertilizer on the credit plan. They point out, further, that the average price of fertilizer in the southeast for 1925 exceeded that for 1924 by nearly $4 a ton, amounting in an aggregate increase in price, based on the total consumption, of nearly $18,000,000. But regardless of this price increase, the consumption of fertilizer on the cotton acreage in 1925 exceeded that in 1924 by over 200,000 tons. It is their position that these two items alone are of as much or more importance to the farmer than the freight rate, and that any reasonable cut in the freight charges would amount to so little to the individual that it would have no

effect either upon the use of fertilizer or upon the farmers' [fol. 966] prosperity. Assume, for example, that the shippers' scale were adopted instead of the carriers', resulting in a rate for a 100-mile haul 64 cents lower than the carriers' scale. On a farm of 100 acres, and using 345 pounds of fertilizer per acre, the average in South Carolina in 1924, the lower rate would result in a total saving of but $11.04. This figure does not, of course, take into consideration any reduction in the price of fertilizer which the lower basis of inbound charges might have a tendency to bring about. In this connection, the carriers direct attention to the statement made on the stand by the vice-president of the American Farm Bureau Federation, when he said:

* * * no effort is here being made to say that the volume of fertilizer to be consumed would be greatly more or less dependent upon the measure of freight rate levels which will result from this proceeding.

Furthermore, the carriers urge that even if a reduction in the freight rates were brought about, the farmer would derive little or no benefit therefrom. This view finds considerable support in the record. For example, they point to that — has already been shown, namely, that the fertilizer prices increased in 1925 over those for 1924 without any change in that direction in the freight rates. And if 1924 is objected to, because of the abnormal conditions which are said to have existed in the industry at that time, a similar comparison, though not so marked, may be made between the prices for 1925 and those for 1923—and here, too, with no upward trend in the freight rates during that period. On the other hand, they point out that although reductions were made in the intrastate rates in South Carolina and Alabama in 1924, no corresponding reductions have since been made in the selling price of fertilizer in those States. An instance is cited where the freight rate from Dothan, Ala., to the last station in that State on the Alabama, Florida & Gulf was $1.71, with a rate of $2.37 to the first station on that line in Florida, a difference in the rates of 66 cents per ton. Yet the price of fertilizer was the same at the two stations. This uniformity in price is probably accounted for by the competitive system in vogue generally in the southeast. It appears that the delivered price of fertilizer

at any interior point is determined by the f. o. b. price at the [fol. 967] nearest port plus the freight rate thence to the particular destination. The price so fixed, it is understood, is maintained by most of the manufacturers regardless of their location.

It is contended by the carriers that the price of crops for the preceding season is really the controlling factor in determining the amount of fertilizer used in the succeeding year,—that when the price of cotton, for example, is high, the farmer increases the use of fertilizer, and when there is a crop failure or the price received is low, a corresponding drop in the use of fertilizer occurs. This is admitted by the agricultural statistician of the Alabama Extension Service to be a considerable factor in determining the fertilizer consumption. On cross-examination he stated:

It has been noted from statistical studies that there is a very decided correlation between the price of cotton and the price of fertilizer, and relatively in the use of fertilizer. When cotton is high, it seems that the price of fertilizer has to some extent followed it, and the farmer has not been prevented from using it by high prices, so long as the price of cotton is high. The farmers' psychology depends very largely on the price of cotton.

An exhibit of record shows that in 1913 the price of cotton in North Carolina was 12.6 cents per pound. In 1914, the price dropped to 6.9 cents, and in the following year the fertilizer used in that State fell off over 225,000 tons. From that time on the price of cotton rose until it reached 35.2 cents in 1919, and in the following year, 1920, 1,221,796 tons of fertilizer were used on cotton in North Carolina as compared with 647,188 tons in 1915. In 1920 the price of cotton went down to 14.5 cents, and in 1921 the consumption of fertilizer in that State fell to 695,542 tons. The prices of mixed fertilizers during this period do not seem to be shown of record, but nitrate of soda and sulphate of ammonia in 1921 seem to have sold for considerably less than in 1920, and at about the same price as in 1914.

In rebuttal of the claim that the farmer will not benefit from a possible rate reduction, shippers state that farm organizations are gradually springing up throughout the south, and that through cooperative buying, which these

[fol. 968] organizations make possible, the farmer not only obtains his fertilizer at a lower price but would in most cases secure dierctly the benefit of any reduction in the delivery charges. It is stated that the Alabama Farm Bureau Federation purchased and distributed to its members in the spring of 1925 approximately 81,000 tons of fertilizer of all kinds. Most of this tonnage consisted of fertilizer materials, which the farmers, themselves, mixed, and which practice, it is said, results in considerable economy.

But regardless of the method of buying, we can but assume that a reduction in the transportation charges would, in some degree, affect the price of fertilizer to the consumer. It is an element in the cost of manufacture, and a reduction in such cost can have but one of three results,—either a reduction in the selling price, an increase in the manufacturer's profits, or both. In any event, it is the commission's concern in this proceeding to reach such an adjustment as, under all the circumstances, will reflect as nearly as may be the importance of this commodity to the agricultural industry, and through its use, the resultant increase in tonnage to the serving carriers.

As already stated, the shippers propose in connection with their scale to apply a minimum carload weight of 20 tons instead of 15 tons as proposed by the carriers. It is understood that their proposal includes also increasing the minimum of all materials, where now lower, to this loading, except cottonseed hulls which are to be continued at 15 tons. And this increase in minimum, they urge, should be taken into consideration in fixing the rate level. The higher minimum is now applicable on intrastate traffic in Alabama, and has the unqualified approval of the vice-president of the American Farm Bureau Federation. Attention is directed to the fact that at the time the 15-ton minimum was adopted in the Royster case the average loading was shown to be but 17 tons, while at the present time the average loading is considerably in excess of that figure. During the month of March, 1925, the average loading of mixed fertilizers from 13 of the principal manufacturing points in the south ran from approximately 21 to 29 tons. An analysis of these figures shows that out of a total of 3,934 cars, 1,087 loaded below 20 tons and the balance above, even though in most of the south the minimum [fol. 969] is 15 tons and in some cases as low as 10 tons. By

the carriers' own showing, the average loading in 1923-1924 on Class I roads in southern territory was a little over 23 tons. Based on the increase in the average car loading of 6 tons over that in 1913, it is estimated that it required 61,000 less cars in 1925 to transport the 4,000,000 tons of fertilizer consumed in the south in that year than it would have required had the average loading remained as in 1913. There seems to be no doubt but that the loading is limited only by commercial needs and conditions. It was stated that it is physically possible, though perhaps not feasible, to load to the full capacity of the car. The carriers question the wisdom of increasing the minimum. They seem to fear that the farmers, in most instances, will object to such increase, and that considerable discontent will be engendered. The only specific objections to the 20-ton minimum came from three manufacturers located in Florida where, at the present time, any-quantity rates prevail, and from a farmer of Sumter, S. C., who stated that the users in his section objected to a greater minimum than 15 tons. This latter objection is apparently raised because of the possible difficulty in getting a sufficient number of individuals to combine to order the larger carload.

The increase in minimum, so far as fertilizer materials are concerned, will apparently cause little change in actual trade practices. The minima as proposed by the carriers, which are those carried in the current consolidated classification, are in many instances on the basis of 20 tons or higher, and it is stated that the average loading of materials is around 35 tons. The principal materials, such as sulphate of ammonia, dried blood, cottonseed meal, acid phosphate, the potash salts, and tankage, now take the 20-ton minimum, and the carriers are proposing to continue these commodities on that basis. Nitrate of soda is also accorded a minimum of 40,000 pounds in the classification, but it is stated that there is a considerable import movement from the south Atlantic ports to South Carolina destinations on a minimum of 10 tons, and there is some movement of materials on this basis between other points in the same general section.

[fol. 970] It would seem that the time has come when an increase in the minimum carload weight on this traffic may very properly be made. Certain it is that on this record there is shown no pronounced objection to the higher mini-

mum, but on the contrary a rather favorably disposed attitude is, on the whole, manifested. This minimum loading, if adopted in Florida, may at first cause some inconvenience and a readjustment in commercial usages. Any-quantity rates are now in effect on intrastate shipments of mixed fertilizer in that State, and it is possible that some little time may be required for the users to accommodate themselves to the carload basis. In fact a manufacturer at Orlando, Fla., stated that it was his opinion that a 20-ton minimum would work a hardship on many small truck growers who would be unable to use that amount. In the Blackshear case, supra, involving rates into Florida, a minimum of 30,000 pounds was prescribed, and no complaint on this score has come to the commission's attention; in fact such expressions as came from that State indicated a willingness to adopt on mixed fertilizer that carload minimum, and a minimum of 20 tons on materials. It is hoped, however, for the sake of uniformity, that a fair trial of the 20-ton basis will be made.

While referring to the Florida adjustment, it should be said that the rates on materials in that State are on the basis of 75 per cent of the mixed fertilizer rates. The relationship was fixed by the Florida commission in order that manufacturers at inland points might more readily compete with plants at the port, and it is urged that any decrease in the spread between these rates and those on mixed fertilizers would be likely to force the interior manufacturer out of business. The intrastate situation in Florida is not of course directly involved in this proceeding, and the record does not warrant a final expression on the propriety of material rates differentially related to those on mixed fertilizer. Except on certain materials in North Carolina which, subject to a minimum of 25 tons, are accorded rates 90 per cent of those on fertilizer, and except on kainit and acid phosphate in Georgia, which are likewise 90 per cent of the fertilizer rates, no other situation is brought to the commission's attention where the materials are granted a lower basis than that on mixed fertilizer. It [fol. 971] is, of course, possible that the industry in Florida is differently circumstanced than elsewhere in the south, and, therefore, merits an adjustment adapted to its peculiar needs.

A representative of the Florida East Coast urged a higher basis of rates in connection with traffic into Florida than for the balance of the southeast, and also considered his road entitled to rates somewhat higher than might obtain on other lines. He submitted no concrete proposal, however, other than that interstate rates to points on his line should be maintained on the basis of the combination over Jacksonville, Fla. The record does not warrant special treatment of interstate shipments into that State.

## Proposal of the Short Lines

The American Short Line Railroad Association on behalf of its southeastern members,[10] seeks a special basis of rates for these so-called weak lines because of their financial condition and limited traffic resources. The general basis of interstate rates on fertilizer to points on these short lines has been, and is, the full combination over the trunk line junction point. Intrastate rates are made, as a rule, on the combination basis less certain percentages which vary in the different States. In Georgia the full combination obtains. In Alabama, on the other hand, joint rates are made between trunk-line and short-line points which are 10 per cent higher than the joint trunk-line scale. The local short-line rates in that State are 20 per cent higher than the rates of the standard lines, and for joint short-line hauls there is added the same differential as obtains between the single and joint standard-line rates. The Alabama adjustment is the one which the shippers are proposing for general application.

The short lines seek approval of the full combination basis, but in any event not less than the Royster Scale, single or joint line, as the case may be, plus an arbitrary of 50 cents per ton, this arbitrary to acrue solely to the participating short-line carrier.

There are other roads, not members of the Short Line Association or individually represented, which likewise seek special consideration. These are:

[fol. 972] (1) The Columbus & Greenville Railway, a line 167 miles long extending from Columbus to Greenville,

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[10] See Appendix E for a list of the lines referred to in the records.

Miss. It desires to maintain the full combination basis, with local rates not less than the Royster Scale.

(2) The Gulf, Mobile & Northern, and its subsidiary, the Birmingham & Northwestern, the former extending from Mobile, Ala., northerly through Mississippi to Jackson, Miss., 408 miles, and the latter extending from Jackson to Dyersburg, Tenn., 48 miles. These roads desire to maintain rates to their local stations made 50 cents a ton higher than the scale adopted for general application.

(3) The Alabama, Tennessee & Northern, extending from Calvert, Ala., northward to Reform, Ala., 186, and its subsidiary, the Alabama & North Western extending from Pine Hill, Ala., to Coxheath, Ala., 24 miles. These roads likewise ask for an arbitrary of 50 cents per ton over the Royster Scale.

(4) The Norfolk Southern, the main line of which extends from Norfolk, Va., to Charlotte, N. C., 400 miles. Of its total main and branch line mileage of 932 miles, 115 miles are located in Virginia, and the balance in North Carolina. This carrier seeks rates made 10 per cent higher than the Royster Scale for single-line traffic, with the same differentials for joint-line traffic as are proposed by the carriers for general application.

(5) The Carolina Railroad and the Kinston Carolina Railroad, the former extending from its connection with the Norfolk Southern at Kinston, N. C., northward to Snow Hill, N. C., 15 miles, and the latter extending from the same junction point southward to Beulaville, N. C., 28 miles. The rates of these lines were fixed by the North Carolina commission, it is said, approximately 50 per cent higher than the Royster Scale, and they desire to continue this basis, with joint-line rates made full combination over their junction with the Norfolk Southern.

With respect to the Association lines it hardly seems necessary in this report to discuss the general situation with any particularity. They have been considered a number of times by this commission, and more recently in Southern Class Rate Investigation, 100 I. C. C. 513, where, except in a few instances, their necessities were recognized. [fol. 973] They have been given special treatment by most

of the States, and, in fact, the shippers, on the whole, do not oppose according them liberal treatment. A financial statement for the year 1924 was submitted by their representative which showed the net railway operating income of these carriers to be in many cases in the red, and with few exceptions apparently far from adequate to afford the fair return fixed by this commission as reasonable under the law.

It was admitted that the Tampa & Gulf Coast is controlled by the Seaboard Air Line and that its earnings, as the result of being a part of a through route, approximated 10 per cent in 1924; that the Live Oak, Perry & Gulf is controlled, through stock ownership, by the Atlantic Coast Line, and that the East & West Coast, the Florida Central & Gulf, and Tampa & Northern are subsidiaries of the Seaboard and operate continuous distance rates in connection with that carrier. With respect to the Live Oak, Perry & Gulf, it was said that within the next six months two of the largest saw mills on its rails would be abandoned, and that at the present time 95 per cent of its tonnage is lumber. Furthermore, it was anticipated that authorization to abandon the line would probably be sought in five years' time. This carrier was refused special relief in the Southern Class Rate case because of its excellent earnings.

The Carolina Railroad and the Kinston Carolina are likewise owned, through stock holdings, by the Norfolk Southern, but it is testified that they had never been operated as an integral part of the latter company, nor are their operating officers the same. As already stated, their special needs have been recognized by the North Carolina commission, in authorizing them to charge substantially higher rates than the standard scale in that State.

Little evidence was submitted with respect to the financial needs of the Alabama, Tennessee & Northern. It was said that it operated at a deficit in 1924, but the Alabama commission contended that if its accounts were kept in accordance with this commission's regulations, and using the tentative value which has been announced, its earnings would be shown to be fully 5¾ per cent, and probably more.

[fol. 974] As said in the Southern Class Rate case, most of the short lines are located wholly within the confines of a single State, and the respective State commissions are in a much better position than is this commission to determine their just needs. Should the respective State commissions feel at any time that the attitude of this body has been too liberal with respect to any of the roads under their jurisdiction, they can bring the matter to this commission's attention.

It should be said, however, that there is considerable doubt as to the financial needs of the following roads:

| | Main line operated (miles) | Operating ratio (per cent) | Net ry. operating income | Total investment |
|---|---|---|---|---|
| Collins & Glennville | 23 | 76 | $4,204 | $53,210 |
| Georgia, Ashburn, Sylvester & Camilla | 50 | 70 | 16,633 | 176,363 |
| Georgia, Florida & Alabama | 193 | 76 | 169,935 | 2,797,114 |
| Lancaster & Chester | 29 | 67 | 42,196 | 708,665 |
| Louisville & Wadley | 10 | 62 | 11,169 | 111,940 |
| Marianna & Blountstown | 43 | 67 | 16,327 | 195,457 |
| Union Point & White Plains | 14 | 84 | 6,559 | 94,923 |
| Washington & Lincolnton | 20 | 64 | 16,784 | 280,284 |
| Alabama, Tennessee & Northern | 166 | (a) | (a) | (a) |

(a) Not shown.

It is not proposed to recommend that these carriers be denied the relief which they seek, mention being made of them merely to direct the attention of the interested State commissions to a study of their condition.

With respect to the Norfolk Southern, this carrier now enjoys rates somewhat higher than the Royster Scale on intrastate traffic in Virginia, in North Carolina for the shorter distances, and on certain interstate traffic that is unaffected by the commission's findings in the Royster case. It was shown that for the years 1920 to 1924, both inclusive, its average operating ratio was 82.5 per cent, that its net railway operating income averaged $802,942, and that the average return on its total investment of over $35,000,000 has been but 2.24 per cent. Its net railway operating income per mile of line for 1923 was shown to have been $1,468 as compared with $3,374, the average for the entire southern region. No one opposed the basis sought by this carrier.

Before discussing the section 13 cases brought against the intrastate rates in Alabama, Georgia, and South Car-
[fol. 975] olina, and certain exceptions to the general adjustment, it seems desirable first to reach a conclusion as to the proper level of rates for general application in this southern territory. In this connection, a study of the traffic test will be helpful.

This traffic test was instituted by the carriers at the request of the commission for the purpose of determining as nearly as possible the effect upon the carriers' revenues, not only of the scale proposed by them, but of the shippers' scale as well. The months of March and April, 1925, were selected for the test throughout the territory involved, except in the State of Florida, where the month of February was taken. These months, it was believed, covered the height of the fertilizer movement in the respective sections, and embraced practically 50 per cent of the total movement for the year. The actual figures of the traffic test will be used in the following discussion, and should be doubled in order to arrive at approximate results on a yearly basis. The figures cover not only mixed fertilizers, but include fertilizer materials and imported materials as well. The movement of imported materials during the test period amounted to about 12.5 per cent of the total tonnage. It is shown that of the total tonnage of fertilizer and materials, amounting to 3,189,819 tons exclusive of Florida traffic, 70 per cent moved for distances of 150 miles and less. Of the single-line traffic, one-half moved for distances of 85 miles and less, and one-half of the joint-line traffic moved less than 140 miles. These figures bear out the statements of record that the hauls are comparatively short. The average haul of mixed fertilizers was said to be about 100 miles, and it was specifically shown that the average from the important manufacturing points in the southeast ran from 40 miles from Hartsville, S. C., to 181 miles from Charleston, S. C. From Atlanta, for instance, the average weighted haul of shipments made by Swift & Company was shown to be approximately 150 miles, and of shipments by the International Agricultural Corporation about 85 miles. From Montgomery, the average weighted hauls ran from 94 miles on single-line intrastate shipments to 185 miles on joint-line interstate shipments; and from Wilmington, N. C., the

average weighted haul of the Atlantic Coast Line for 1923 [fol. 976] was shown to have been 89 miles on fertilizer shipments and 111 miles on materials. It is agreed that the average haul of materials substantially exceeds that of mixed fertilizers. For example, it was shown that from 13 plants located at 10 points in Alabama, the average outbound haul was but 51 miles, while materials moved inbound to the same plants an average distance of 355 miles. The inbound hauls will, of course, vary considerably depending on the location of the plant with respect to the principal source of its raw materials. It is believed that the average inbound haul to the foregoing Alabama manufacturers probably exceeds the average.

The traffic test showed that 2,154,422 tons, or 67 per cent of the total, moved single line, and 2,189,254 tons, or about 69 per cent, moved in intrastate commerce. Of the total revenue of $7,947,908, exclusive of Florida shipments, almost 60 per cent, or $4,753,932, accrued on intrastate traffic. At the same ratio that the intrastate tonnage bore to the total tonnage, the intrastate revenue would have been about $730,000 more than the figure shown.

The foregoing data does not take into consideration Florida traffic, either intra- or interstate. As heretofore stated, the Florida intrastate rates on mixed fertilizer are on an any-quantity basis, and for the purpose of the traffic test all shipments which loaded 10,000 pounds or over were considered carload lots and so rated, the revenues being determined on the actual weight. Through this segregation, and using the month of February, 1925, as representing about the peak period, 29,840 tons moving intrastate were rated as carload shipments, and 5,070 tons as less than carloads. The carload traffic moved in 1,817 cars, averaging a little over 16 tons to the shipment. 10,600 tons moved in interstate commerce, or about 26 per cent of the total carload tonnage. The total revenue on the carload traffic is shown to have been $122,586, of which $40,489, or one-third, accrued on interstate shipments.

The traffic test shows that for the period covered the rates proposed by the carriers would result in an increase in revenue, exclusive of Florida, of $834,285, which, on a yearly basis, would result in a total of approximately $1,668,000. The proposed rates applied to the Florida ton-

nage for the month of February resulted in an increase in [fol. 977] revenue of $17,097. The record is not clear as to what percentage of a year's business this showing of one month represents—it is probably safe to assume that it is something less than one-half of what the result would be for a year. In view of the fact that the proposed rates approximate the present intrastate rates in Florida up to 170 miles, being in a number of cases even lower than the Florida scale, it is highly probable that a substantial amount of the increase in that State would result from placing fertilizer materials on the same basis as mixed fertilizers, the former now being accorded rates made 75 per cent of the latter. The carriers call attention to the showing made, that, of the total increase exclusive of Florida, a little over one-fourth, or $210,729, would accrue on traffic delivered at destinations on the so-called short lines as to which a special and higher basis is sought.

As the result of a hurried computation, the carriers estimate that the shippers' proposed scale would result in a reduction in their revenues of not less than $636,146, or $1,272,000 on an annual basis. On brief, counsel for the Alabama commission, although admitting that some reduction in the revenue of the railroads would likely occur under the shippers' proposed rates, minimize the carriers' estimated amount of such reduction. For one thing they urge that the full effect of their proposed higher carload minimum was not taken into account, and they point further to the showing of record that as the minimum weight has been increased the actual loading has become correspondingly greater, and has always exceeded the minimum in effect. For example, in 1913 when the minimum was 10 tons, the actual average loading from Norfolk was 17 tons, and after the minimum had been fixed at 15 tons the actual average loading from that point increased until in 1925 it had reached 23 tons. From Montgomery, the actual average loading in 1923 under a 15-ton minimum was shown to be 25.6 tons, while two years later, under a minimum of 20 tons, the actual average loading was 29 tons. Counsel's argument seems to be that with the uniform adoption of a 20-ton minimum throughout the southeast an increase in the gross revenues will undoubtedly result. It is not clear just why or how this result would necessarily follow.

[fol. 978] Unquestionably, the minimum weight would affect the per car earnings, but on an assumed yearly consumption of fertilizer the aggregate revenue on the total tonnage would not, it seems, be much different whether the minimum was 15 tons or 20 tons. It would only mean that fewer cars would be employed in the transportation, and that as a result a considerable saving in operating costs would be effected, and a consequent increase in the net revenue; but whether the actual gross income would be increased is doubtful.

Counsel for the Alabama commission further point to the showing made by the Norfolk Southern with respect to the loss of revenue by that carrier under the shippers' proposed scale. It was shown that this would amount to $73,913 based on the test period tonnage, or approximately $147,000 on a year's business. This carrier, it will be recalled, is asking for special treatment, proposing single-line rates over its line made 10 per cent higher than the Royster Scale, and observing the same differences between single and joint-line rates as at present obtain in the Royster Scale. It is stated that 61 per cent of the total tonnage delivered by the Norfolk Southern during the test period represented intrastate shipments in North Carolina, where rates somewhat higher than the Royster Scale obtain, and this seems to cover by far the bulk of the movement under such higher rate basis. The Alabama commission does not oppose a higher basis for this carrier, and, on the assumption that preferential treatment in some degree will be accorded it, concludes accordingly that this reduction in revenue will not take place, or at least will be but nominal, thus substantially diminishing the gross estimated reduction under the shippers' scale. It of course naturally follows that any basis higher than that proposed by the shippers would result in a lesser loss than that shown.

It seems that the factor which may affect the estimated loss under the shippers' scale more than any other one element is, perhaps, the treatment that may be accorded traffic moving over short lines, and over trunk and short lines jointly. In estimating the loss under the shippers scale, it is understood that the carriers applied to their traffic test tonnage the short line basis proposed by the

[fol. 979] shippers, which would result in lower revenue on all single-line shipments up to 150 miles, and on all joint trunk-and-short-line shipments up to 480 miles, than would accrue under the shippers' trunk-line scales plus a short-line arbitrary of 50 cents a ton. For example, it is shown that for the block of 120 miles and over 110, 34,000 tons of fertilizer moved in joint-line service in connection with short lines. Using the shippers' trunk-line scale for 120 miles, plus a short-line arbitrary of 50 cents, results in a rate 25 cents a ton higher than the shippers' proposed joint scale for trunk and short lines. This would produce additional revenue over that estimated of approximately $8,500 for this one mileage block alone.

It is the position of the shippers, however, if their attitude is correctly understood, that controlling weight should not be given to the maintenance of the present fertilizer revenue. In fact, counsel for the Alabama commission state on brief:

> We cannot believe that the Commission would be content in this case to arrive at a common level of rates on fertilizer in this territory by the adoption of the equalization-of-revenue theory. This might be the line of least resistance, but it would accomplish nothing in a constructive way. It would assume that the transportation burden which fertilizer is now forced to carry in the aggregate is right and proper for the future, notwithstanding the fact that it has been subjected to the same general advances in rates as were made in the higher grade articles of freight since June 25, 1918, and notwithstanding the patent fact that no effort has heretofore been made by the carriers or the Commission to arrive at a proper uniform level of rates on this commodity to apply throughout this large territory which is chiefly an agricultural area. In short, if this case is decided upon that theory, all of the inherent defects in the present system of rates will remain.

The shippers point out that the carriers have selected the highest scale maintained over any considerable territory in the southeast, and they contend that the relatively high level of rates in this Carolina territory can readily be traced to the influence exerted thereon by the northern rate structure. Excluding Carolina territory, they urge

[fol. 980] that the scale proposed by them fairly represents the average in effect throughout the balance of the southeast except in Mississippi where a somewhat lower basis obtains. It is argued, in effect, that there is no more reason, if as much, for increasing the rates throughout the southeast to the level of the rates maintained in the comparatively limited territory covered by the Royster Scale, than there is for reducing the rates in that territory to the average basis in effect throughout the balance of the southeast. In this connection it should be said that one of the North Carolina commissioners appeared at the hearing, and stated that the commission of that State now considered the Royster Scale not only too high for application in North Carolina, but too high as well for general application in the southeast. He said, to quote his own words:

It seems to us apparent that the level of rates on fertilizer between points in North Carolina adopted in 1914, and which became the basis for the scale of rates known as the Royster scale, is a higher scale of rates than should be continued between points in North Carolina or adopted for general application, state and interstate, throughout the southeast.

He further stated that it was "the purpose of the North Carolina Corporation Commission to revise the schedule of rates on fertilizer between points in North Carolina before the season for another general movement of fertilizer and as soon as this may be done without creating discrimination against interstate shippers." And the shippers call attention to the following statement made by the commission at page 623 of its decision in Southern Class Rate Investigation, supra, where it was recognized that in any general rate revision, the commodity rates in the Carolinas would undoubtedly be subject to some reduction:

A further argument advanced in favor of a concession in rates, in North Carolina at least, is the fact already mentioned that class rates in Carolina territory are now and for a long time have been relatively low compared with similar rates in other parts of southern territory. [fol. 981] It is true that if class rates are placed upon a uniform basis in southern territory which will preserve

existing revenues in the aggregate, North Carolina will lose where certain other States will gain. On the other hand, the evidence indicates that if a similar process is followed, as is probable, in the revisions of commodity rates in southern territory which are in contemplation, the results will be reversed.

From the comprehensive record in this proceeding, it is clear that fertilizer, probably more than any other one factor, determines the success or failure of agriculture in the south. Whatever can be done, therefore, to encourage its increased use should be done, not alone because of the benefit that will accrue directly to the farmer, but equally because of the direct and indirect tonnage that will accrue to the carriers. It is a commodity that gives raise to few claims of damage, and for the most part its present value is well within $1,000 per car. Whether or nor the farmer will receive the precise amount in dollars and cents of any reduction that may be made in the freight rates is not necessarily of prime importance. As heretofore said, it is an item of expense to the manufacturer and must necessarily be reflected to some extent at least in the ultimate price of the commodity. With the question of profits accruing to the fertilizer manufacturers, we are not directly concerned. They are, of course, entitled to reasonable returns on their business enterprise, and anything bordering on exorbitant profits can, it seems likely, be controlled through channels in the hands of the farmers themselves. While fertilizer and fertilizer materials should be rated well down in the transportation scale, this does not mean, however, that the carriers should be required to carry the traffic at anything less than reasonable rates when all the elements involved are taken into consideration. Witness for the Alabama commission conceded that the rates on fertilizer should be somewhat higher than those on sand and gravel, slag, crushed stone, coal, and commodities of that class.

In prescribing rates from Blackshear, Ga., to northern Florida points, this commission followed the Memphis-Southwestern scale up to 240 miles, and it will probably [fol. 982] be admitted by the carriers that the transporta-

tion conditions in the south are, on the whole, somewhat more favorable than from Blackshear into Florida. The Memphis-Southern rate for 100 miles is $2.30, yielding, on the minimum of 15 tons prescribed in that case, $34.50 per car, and 34.5 cents per car mile. This minimum revenue is not far from right. A rate of $2.10 for this distance, based on a 20-ton minimum, would yield $42 per car and 42 cents a car mile, higher, even, than the carriers' proposed rate on a 15-ton minimum. This, it is believed, is a reasonable starting point in fixing a just scale for general application in this territory. By referring to Appendix D, it will be observed that the rate of progression in the Memphis-Southwestern scale is not uniform for each mileage block. Beyond the shorter distances, the rates increase generally 10 cents for each 5 miles up to 140 miles, but there are several instances where there is no progression. For example, the rate for 50 miles is the same as for 45, the rate for 65 miles is the same as for 60, etc. These inconsistencies occur throughout the scale. The shippers' proposed scale shows a uniform progression of 10 cents for each 5-mile block up to and including 25 miles, with a progression of 5 cents for each 5-mile block beyond that distance to and including 100 miles. Beyond 100 miles, the scale is in 10-mile blocks up to 260 miles, with 10 cents added for each block. Beyond 260 miles, the scale is in 20-mile blocks up to 500 miles, and in 25-mile blocks beyond, with the same gradation in each case, 10 cents. The gradation proposed by the shippers seems to be, on the whole, well considered.

The joint-line rates in the Memphis-Southwestern case were made uniformly 20 cents higher than the single-line scale for all distances up to and including 500 miles. The shippers propose to begin their joint-line scale 30 cents higher than their single-line rates, and reduce the differential as the distance increases, reaching 10 cents at 350 miles and disappearing at 500 miles. The Royster Scale when adopted provided a differential of 20 cents per ton for joint-line hauls up to and including 600 miles, the limit of the scale. This has now become generally 33 or 34 cents by reason of the general rate changes, but it is not in all cases uniform. The joint-line rates proposed [fol. 983] by the carriers are on this basis, and the higher

rates are proposed for all distances up to 1,000 miles. It is believed that the differential scheme brought forward by the shippers is a step in the right direction. It would seem logically to follow that as the haul grows longer the cost of the joint service should grow proportionately less. To compensate for the diminishing joint-line differentials, they should, perhaps, be extended somewhat beyond 500 miles.[11]

The commission should find that the following rates for single and joint-line hauls will, for the future, be reasonable maximum rates for the transportation of fertilizer and fertilizer materials over so-called standard or trunk lines throughout the territory involved in this proceeding. Carriers under a common control or management shall be considered part of the controlling line.

| Distance Miles | Single-line rates (Cents) | Joint-line rates (Cents) |
|---|---|---|
| 10 and under | 90 | 120 |
| 15 and over 10 | 100 | 130 |
| 20 and over 15 | 110 | 140 |
| 25 and over 20 | 120 | 150 |
| 30 and over 25 | 130 | 160 |
| 35 and over 30 | 140 | 170 |

[11]Some consideration has been given to making rates over two or more lines in the following manner: Where the haul is over two or more carriers not under common control or management, there may be added to the total actual distance 20 miles for the first interchange between such independent carriers, and 10 miles for each additional interchange, but in no case more than an aggregate of 50 miles, the applicable rates to be determined by these inflated distances.

This addition for joint-line service would be observed regardless of the length of haul. This scheme would seem to have merit in that it provides for an increasingly higher rate as the number of carriers participating in the transportation increases.

Comments on this proposal are invited in the executions, in case exceptions are filed or upon the argument should one be desired.

| Distance Miles | Single-line rates (Cents) | Joint-line rates (Cents) |
|---|---|---|
| 40 and over 35 | 150 | 180 |
| 45 and over 40 | 155 | 185 |
| 50 and over 45 | 160 | 190 |
| 55 and over 50 | 165 | 195 |
| 60 and over 55 | 170 | 200 |
| 65 and over 60 | 175 | 205 |
| 70 and over 65 | 180 | 210 |

[fol. 984]

| | | |
|---|---|---|
| 75 and over 70 | 185 | 215 |
| 80 and over 75 | 190 | 220 |
| 85 and over 80 | 195 | 225 |
| 90 and over 85 | 200 | 230 |
| 95 and over 90 | 205 | 235 |
| 100 and over 95 | 210 | 240 |
| 110 and over 100 | 220 | 245 |
| 120 and over 110 | 230 | 255 |
| 130 and over 120 | 240 | 265 |
| 140 and over 130 | 250 | 275 |
| 150 and over 140 | 260 | 285 |
| 160 and over 150 | 270 | 295 |
| 170 and over 160 | 280 | 305 |
| 180 and over 170 | 290 | 315 |
| 190 and over 180 | 300 | 325 |
| 200 and over 190 | 310 | 335 |
| 210 and over 200 | 320 | 340 |
| 220 and over 210 | 330 | 350 |
| 230 and over 220 | 340 | 360 |
| 240 and over 230 | 350 | 370 |
| 250 and over 240 | 360 | 380 |
| 260 and over 250 | 370 | 390 |
| 270 and over 260 | 380 | 400 |
| 280 and over 270 | 390 | 410 |
| 300 and over 280 | 400 | 420 |
| 320 and over 300 | 410 | 425 |
| 340 and over 320 | 420 | 435 |
| 360 and over 340 | 430 | 445 |
| 380 and over 360 | 440 | 455 |
| 400 and over 380 | 450 | 465 |

| Distance Miles | Single-line rates (Cents) | Joint-line rates (Cents) |
|---|---|---|
| 420 and over 400 | 460 | 475 |
| 440 and over 420 | 470 | 485 |
| 460 and over 440 | 480 | 495 |
| 480 and over 460 | 490 | 500 |
| 500 and over 480 | 500 | 510 |
| 525 and over 500 | 515 | 525 |
| 550 and over 525 | 530 | 540 |
| 575 and over 550 | 545 | 555 |
| 600 and over 575 | 560 | 560 |
| 625 and over 600 | 570 | 570 |

[fol. 985]

| | | |
|---|---|---|
| 650 and over 625 | 580 | 580 |
| 675 and over 650 | 590 | 590 |
| 700 and over 675 | 600 | 600 |
| 725 and over 700 | 610 | 610 |
| 750 and over 725 | 620 | 620 |
| 775 and over 750 | 630 | 630 |
| 800 and over 775 | 640 | 640 |
| 850 and over 800 | 650 | 650 |
| 900 and over 850 | 660 | 660 |
| 950 and over 900 | 670 | 670 |
| 1000 and over 950 | 680 | 680 |

With respect to fertilizer and fertilizer materials moving over so-called short or weak lines, in both single and joint-line hauls, the commission should find, except as to the Norfolk Southern, that reasonable rates for such traffic will be those set forth above plus an arbitrary of 50 cents per ton, this arbitrary to accrue solely to the participating short or weak line. This finding includes those carriers shown as members of the American Short Line Railroad Association in Appendix E, other than those which are under common control or management with some standard trunk line carrier, and also includes the Columbus & Greenville, the Kinston Carolina and the Carolina Railroad.

As for the Norfolk Southern, the commission should find that reasonable rates for the transportation of fertilizer and fertilizer materials in connection with that car-

rier, in both single and joint-line hauls, will be those set forth above plus 10 per cent, but in no case to exceed 50 cents per ton, this excess over and above the standard joint-line rates to accrue solely to the Norfolk Southern.

The carriers propose to maintain rates on less-than-carload traffic, as do also the shippers, made 120 per cent of the carload rates. This is the classification basis in the southeast, and has been in effect for some time. This spread between l. c. l. and carload rates seems altogether too small when compared with the spread between less-than-carload and carload rates on other commodities. The less-than-carload fertilizer traffic in this territory is not apparently of great proportions. It was shown that the less-than-carload shipments from various manufacturers in Ala-[fol. 986] bama represented but 2.14 per cent of their total rail movement, and that of a total tonnage of 16,847 tons moving from Blackshear, Ga., in 1924 to destinations in Florida and Georgia, only 1,426 tons, or 8.4 per cent of the whole, comprised less-than-carload shipments. While the record is lacking in sufficient data to enable the commission to fix a definite percentage relationship it is nevertheless adequate to warrant the recommendation that the less-than-carload rates be increased to not less than 130 per cent of the carload rates.

## Exceptions to the General Adjustment

An exception to the application of the straight mileage scale is proposed by the carriers in connection with fertilizer and materials from the Ohio River crossings to points in Carolina territory. Under the proposed adjustment, Louisville is to be taken as the pivotal point, applying the distance rates therefrom, with rates from Cincinnati made the same as from Louisville, and those from Cairo and Evansville made 79 cents higher than from Louisville.

This differential of 79 cents represents, it is understood, the average difference in the rates, based on the Royster Scale, to represent points in the Carolinas from Louisville on the one hand, and from Cairo and Evansville, on the other.

To the Mississippi Valley territory [12] it is proposed to maintain rates from the respective crossings, Cairo to Louisville, inclusive on the strict distance scale, except in [fol. 987] certain instances where the prohibitions of the fourth section of the act make it necessary to maintain lower rates than would otherwise obtain because of the rates fixed to such points by other and shorter routes. For example, the single-line rate from Cairo to Tupelo, Miss., under the Royster Scale would be $3.60. Certain other routes reaching Tupelo through New Albany, Miss., would maintain the same rate to the latter point, although under a strict observance of the distance scale a higher rate would obtain at that destination. From Cincinnati, Covington, Ky., Lexington, Ky., and other points grouped therewith, it is proposed to maintain rates to the Mississippi Valley made 55 cents per ton higher than the rates in effect from Louisville. This differential is said to represent about the average difference in the rates under the Royster Scale from Louisville, on the one hand, and from Cincinnati on the other.

To destinations in Montgomery and Atlanta sub-territories [13] it is proposed to maintain rates from Cairo and

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[12] The rate territories in the southeast were described in Southern Class Rate Investigation, at pp. 522, 523, as follows:

* * * southern territory has been divided into certain districts which are generally recognized but not easy to define by exact limits. On the west is a wedge-shaped district, known as Mississippi Valley territory, the western boundary of which is the Mississippi River and the eastern boundary a line running from Paducah, Ky., to Mobile, Ala., and following for the most part the Mobile & Ohio Railroad. To the east of this district lies southeastern territory. Its northern limits are vague, but apparently the boundary is the Memphis division of the Southern and, strictly speaking, it does not extent into Kentucky or include any large area in Tennessee, although portions of those States are frequently treated as within the Southeast. Certainly it embraces Alabama, Georgia, northern Florida, and the extreme southern portion of South Carolina.

Evansville the same as from Louisville, with rates from Cincinnati and points grouped therewith made 55 cents per ton higher to points in Montgomery sub-territory, and the same as from Louisville to points in Atlanta sub-territory. In this adjustment, Louisville has been taken as the pivotal point, establishing rates therefrom in accordance with the distance scale. The distance from Cincinnati to points in Montgomery sub-territory is said to be substantially 110 miles greater than from Louisville, which results generally in rates under the Royster Scale 56 cents higher than from Louisville. The present differential is 54 cents, and the median has been used.

It is understood that the rates under this proposed adjustment from the Ohio River crossings will apply largely on fertilizer materials such as tankage, dried blood, and cyanamid, originating beyond the crossings, and that little or no mixed fertilizer tonnage will be handled thereunder.

Some objection was voiced by counsel for the Kentucky commission to grouping Lexington with Cincinnati, Lexington being located 100 miles south of that crossing. It was his contention that this interior point should have the benefit of its location. The only reasons advanced for this grouping were that it had been maintained for a considerable time, and placed the shippers at those points on an equality. [fol. 988] We are not convinced, however, that its grouping with Cincinnati is either commercially desirable or advantageous from a transportation standpoint. The commission should find that such grouping with Cincinnati with respect to traffic to both Montgomery and Atlanta subterritories should be discontinued.

There seems to be no objection to the proposal of the carriers respecting the adjustment from the Ohio River crossings, in general, and as we read the record it is not questioned by the shippers. The commission should permit the carriers to adjust their rates as proposed by them, except

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It is divided into Montgomery subterritory and Atlanta subterritory by a line running from Chattanooga, Tenn., to Birmingham, Ala., thence to Columbus, Ga., and thence south to the Gulf. Carolina territory includes North Carolina, the northern part of South Carolina, and the strip of Virginia south of the line of the Norfolk & Western.

as to Lexington, Ky., but based on the scale of rates hereinbefore recommended.

## Import Rates

There is some doubt as to whether the rates on imported fertilizer materials are involved in this proceeding. The carriers incline to the opinion that the commission's order did not embrace import traffic, and the shippers take the opposite view. The order of the commission refers only to "interstate rates," and technically construed this would probably exclude rates on foreign commerce. It is not, however, of vital importance, for the shippers themselves do not urge specific findings at this time with respect to import traffic. Both the carriers and the shippers propose a system of port equalization, brought about, in general terms, by using the domestic distance scale from the nearest port with other competing ports placed on the same basis. This equalization would only apply to points located some little distance from the seaboard, say, 200 miles from the nearest port. Within this radius, or for the shorter distances, the rates from each port would be made in accordance with the scale subject only to the prohibitions of the fourth section of the act. In such equalization the Gulf ports and the south Atlantic ports are to be considered two distinct and unrelated groups.

In connection with this import traffic, the shippers direct attention to the fact that the handling charges at the ports are no longer absorbed by the line-haul carriers, as has been the practice in the past, and they urge that this should be [fol. 989] taken into consideration in fixing the general level of the rates. Whatever import tonnage moves to inland points does so on comparatively long hauls, and the aggregate amount of port charges on this tonnage as compared with the total freight charges does not seem of sufficient importance to affect materially the general rate level.

It is understood that it is the shippers' thought that the carriers should be left free to propose and submit to them for their study and suggestions a comprehensive adjustment covering import traffic, and no objection was voiced by the carriers to this procedure. The commission should recommend that this initial disposition of the matter be followed.

## Fourth-section Relief [13]

The carriers ask for full relief from the long-and-short-haul provision of the fourth section of the act, which relief is set forth by them on brief under four classes as follows:

1. The maximum amount of relief permitted under the fourth section, as amended, which provides in substance that the Commission may grant authority to the circuitous line or route to meet the rate of the direct line or route between competitive points, provided the rates, from, to, or between, points on the circuitous route as to which the haul provision of the fourth section of the act, which relief do not exceed the latter;

2. The maximum relief under the circuity rule from the pivotal point in the Ohio River adjustment, with additional authority, based on special circumstances, to apply the pivotal point rate to other points within the groups, provided the pivotal point rate is not exceeded at intermediate points on the direct line;

3. Authority for a joint-line route to meet the rates between competitive points fixed by the single line route without observing the competitive rate as maximum at intermediate points, provided that the rates to intermediate [fol. 990] points on the route of the joint line do not exceed the joint line scale, and, further, do not exceed the lowest combination; and

4. Authority to apply to or from common points in connection with the short or weak lines, the competitive rates made by the standard lines without observing the same as maxima at intermediate local points on the short, or weak lines, provided the lowest combination is not exceeded.

The relief sought in the first combination is similar to that granted in Live Stock to, from, and between Points in the Southeast, 74 I. C. C. 119, but in prescribing rates rela-

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[13] Various fourth section applications of the southern carriers, as set forth in Appendix F, were assigned for hearing in connection with this proceeding in so far as they covered rates on fertilizer and fertilizer materials between points in the southeast.

tively low because of the character of the traffic, as is proposed in this proceeding, it is not believed that unduly circuitous lines may lawfully be given the relief which they seek. For example, the Mobile & Ohio desires, among other things, to meet over its circuitous route through Artesia, Miss., the rate of the direct line of the Louisville & Nashville between Mobile, Ala., on the one hand, and Montgomery on the other, without observing such competitive rates as maximum at intermediate points. The distance from Mobile to Montgomery over the Louisville & Nashville is 178 miles, while over the route of the Mobile & Ohio it is 401 miles, or 125 per cent longer. The rate under the examiners' proposed scale for the short-line distance would be $2.90, which would yield for the distance over the Mobile & Ohio but 7.2 mills per ton mile, and but 14 cents per car mile. Other similar situations could be cited. For instance, the Seaboard Air Line desires to meet the rates of the Atlantic Coast Line from Wilmington, N. C., to Mullins, S. C. The short-line distance is 81 miles, and over the Seaboard 165 miles, or 104 per cent circuitous. The rate proposed for 81 miles is $1.95, which, over the circuitous route, would yield but 11.8 mills per ton mile, and 23.6 cents per car mile. In all such situations, it seems beyond argument that if the tentative rate is reasonably compensatory for the longer haul, it must necessarily be unreasonably high for the shorter haul. No other conclusion seems logical. And as the latter assumption cannot be entertained, the only alternative is that the rate would not be reasonably compensatory over the circuitous route, and therefore not permissible under the fourth section. The carriers vig- [fol. 991] orously oppose, however, the imposition of any limitation on the circuity of the long line. They say that such a limitation requires the specific designation of the routes over which the rates apply, and to do this is impracticable from a tariff standpoint. In Brick and Clay Products in the South, 88 I. C. C. 543, the circuity of the line given relief was fixed at 70 per cent where the distance over the direct route was 150 miles and less, and at 50 per cent where the short line was over 150 miles. That proceeding, however, stands reopened for further consideration of this particular question. While it seems that some limitation must be placed on the circuity of the indirect routes that may properly be given relief from the fourth section, it is

recommended that whatever conclusion is reached in the Brick case should be followed here.

The second class of relief is similar to that asked for and considered in Brick and Clay Products in the South, supra, and which was granted in that proceeding, but subject to the same limitations as were prescribed in connection with the relief based solely on circuity. The commission should reach the same conclusion in this case.

The relief sought under the third classification is similar to that granted in Memphis-Southwestern Investigation, supra, and other cases. The authority granted joint-line routes to meet the rates of single-line carriers is not based on the ground of circuity, but upon the different circumstances and conditions in connection with joint-line hauls and the additional cost of service incident thereto. Were the limitation to be imposed that the competitive rate should not be exceeded at intermediate points no farther distant from the point of origin than is the competitive point over the direct route, the purpose of the joint-line differentials would, to a considerable extent, be defeated. The commission should grant the relief sought for the joint-line routes, subject only to the provisos that the rates from or to intermediate points shall not exceed the lowest combination, and shall not exceed the rates prescribed for the distances involved.

The fourth class of relief involves rates to points on the so-called short or weak lines, and is for the purpose of enabling those lines to meet the rates of the standard carriers [fol. 992] at their junction points without observing such rates as maxima at the intermediate local stations on the respective short or weak lines. The ground for this relief is not that of circuity, but of financial necessity, and there are cases where the routes which embrace the short line will constitute the direct route in point of mileage. These carriers have in practically all cases been accorded the relief which they here seek, and there seems to be no reason why it should not likewise be authorized in this proceeding. The commission should grant the relief sought, subject only to the limitation that the rates to the intermediate local short-line points shall not exceed the lowest combination, and to the further limitation that the relief routes should not be unduly circuitous.

## The Intrastate Cases

We come now to a consideration of the petitioners of the carriers alleging undue prejudice against interstate shippers and localities and unjust discrimination against interstate traffic, in violation of sections 3 and 13 of the act, by reason of the intrastate rates maintained in Alabama, Georgia and South Carolina. The carriers' evidence was directed almost entirely to a comparison of the interstate rates from manufacturing points outside the respective states with the intrastate rates from plants within those states, the destinations selected being generally located on lines operating between such manufacturing points.

### Alabama

Taking up first the Alabama situation, it is shown by numerous exhibits that the rates from points in Mississippi, Tennessee, and Georgia to destinations within the State of Alabama are substantially higher than the Alabama rates for corresponding distances. A few illustrations will suffice to give a general idea of the present adjustment. In conjunction with the present rates are set forth also the rates under the Royster Scale and under the examiner's tentative scale for the distances shown:

[fol. 696]

| From | To | Distance (miles) | Present rates (cents) | Royster scale (cents) | Tentative scale (cents) |
|---|---|---|---|---|---|
| Tupelo, Miss | Glen Allen, Ala | 72 | 230 | 214 | 185 |
| Birmingham | " | 75 | 170 | 214 | 185 |
| Chattanooga, Tenn | Larkinsville, Ala | 62 | 210 | 203 | 175 |
| Decatur, Ala | " | 60 | 155 | 203 | 170 |
| Nashville, Tenn | Elkmont, Ala | 98 | 259 | 259 | 210 |
| Birmingham | " | 107 | 205 | 259 | 220 |
| Columbus, Ga | Superior, Ala | 46 | 203 | 180 | 160 |
| Montgomery | " | 49 | 145 | 180 | 160 |
| Columbus, Ga | Alexander City, Ala | 75 | 237 | 214 | 185 |
| Birmingham | " | 82 | 180 | 237 | 195 |
| Rome, Ga | Anniston, Ala | 63 | 216 | 203 | 175 |
| Birmingham | " | 63 | 160 | 203 | 175 |
| Atlanta, Ga | Heflin, Ala | 85 | 259 | 237 | 195 |
| Birmingham | " | 82 | 180 | 237 | 195 |

[fol. 994] In the foregoing table, destinations have been selected approximately equidistant from the origins used, but for all distances the intra- and interstate rates bear the same relative relationship. Manufacturing plants are located at all the originating points shown, and the transportation conditions in Alabama are said to be no different than those on the interstate hauls.

The Alabama commission contends that the law does not require that intrastate rates shall be maintained on the exact level of interstate rates, citing Ohio State Rates on Sand Gravel, Stone and Paving Blocks, 85 I. C. C. 66, and that before an intrastate rate may be condemned it must be found to work undue prejudice against persons in interstate commerce or constitute an unjust discrimination against interstate commerce as a whole, citing Wisconsin R. R. Commission v. C., B. & Q. R. R. Co., 257 U. S. 563. It urges that the carriers have not proved their case, and points to the fact that the carload minimum in connection with the Alabama rates is 5 tons higher than under the interstate rates, and that its scale averages as high as the so-called normal scales of three of the largest trunk lines operating in that State, namely, the Illinois Central, the Louisville & Nashville, and the Mobile & Ohio. This latter statement is true so far as the average is concerned, but taking the lines individually it appears that the rates of the Illinois Central are in most cases higher than the Alabama scale for all distances of 220 miles and over; that the rates of the Louisville & Nashville are higher than the Alabama scale for all distances up to and including 160 miles, except for the block of 10 miles and over 5; and that the rates of the Mobile & Ohio are higher than the Alabama scale for all distances, except for three blocks, up to and including 110 miles.

While an exact parity between intra- and interstate rates may not in all cases be required under the law, nevertheless when there is such a preponderance of intrastate traffic as here obtains, the conclusion is inevitable that the application of rates thereon anything less than reasonable must bring about, in some degree at least, the unjust discrimination against interstate commerce declared by the act to be unlawful. Furthermore, such an inequality in rates as is [fol. 995] here shown to exist must also work a hardship against those interstate localities and shippers which come in competition with the Alabama adjustment.

## Georgia

The general history of the rates in Georgia has already been discussed. Effective November 15, 1924, the State commission promulgated a scale of rates on fertilizer which was generally lower than that then in effect. These rates were temporarily enjoined by the Federal Court for the Northern District of Georgia, and thereafter the Georgia commission rescinded its order. The present rates, therefore, are those which have been in effect in that State since 1897, as revised under the general rate changes. The showing with respect to interstate rates into Georgia over single-line routes is similar to, though in all cases not so marked as, the Alabama situation. The following examples illustrate the existing adjustment:

[fol. 966]

| From | To | Distance (miles) | Present rates (cents) | Royster scale (cents) | Tentative scale (cents) |
|---|---|---|---|---|---|
| Montgomery, Ala | Nesbit, Ga | 172 | 372 | 327 | 290 |
| Savannah, Ga | " | 168 | 293 | 315 | 280 |
| Montgomery, Ala | Pine Park, Ga | 204 | 338 | 349 | 320 |
| Savannah, Ga | " | 208 | 315 | 349 | 320 |
| Dothan, Ala | Naylor, Ga | 148 | 327 | 293 | 260 |
| Savannah, Ga | " | 144 | 282 | 293 | 260 |
| Chattanooga, Tenn | Bowden Junction, Ga. | 131 | 270 | 282 | 250 |
| Macon, Ga | " | 128 | 259 | 270 | 240 |
| Chattanooga, Tenn | Hamby, Ga | 39 | 169 | 169 | 150 |
| Rome, Ga | " | 39 | 135 | 169 | 150 |
| Jacksonville, Fla | Thalmann, Ga | [illegible] | 237 | 214 | 185 |
| Savannah, Ga | " | 70 | 169 | 214 | 180 |

[fol. 997] The record does not include a similar comparison of joint-line interstate rates with the current joint-line rates in Georgia. The commission of that State contends that, in using single-line rates, the true situation is not presented; that joint rates in Georgia are made on the full combination basis, and it points to the showing of record that the carriers' proposed joint-line rates are not in a single instance, save one, higher than the joint rates in Georgia, but, on the contrary, are in most cases considerably lower. The Georgia commission further urges that the present basis of rates has been in effect for many years, and this is the first time that discrimination against interstate commerce has been alleged. Furthermore, that not a single interstate shipper testified in this proceeding that he was at a disadvantage because of the Georgia rates. It was testified by a representative of the Central of Georgia that the bulk of its fertilizer traffic in Georgia moved on single-line rates, and this carrier is said to be an important line in that State with a substantial fertilizer tonnage.

It is certain that on this record the joint rates in Georgia cannot be condemned. They are not shown to operate to the prejudice of interstate shippers, nor that they place a burden on interstate commerce. And, after the adoption of the tentative or a similar scale for application on interstate traffic, neither is it believed that the single-line rates in Georgia will, on the whole, result in unjust discrimination against interstate or foreign commerce, or unduly prejudice interstate localities and shippers, in violation of sections 3 and 13 of the act. The Georgia commission, however, is not adverse to uniformity between their rates and interstate rates—it is the level to be adopted as the measure of reasonableness which concerns them. On brief, it is said:

> The Georgia Commission is not opposed to a system of uniform rates on fertilizer for general application in southeastern territory, to be applied both to inter- and intrastate traffic, but we feel that such rates should be reasonable and just, both to carrier and shipper.

[fol. 998] South Carolina

The Railroad Commission of South Carolina entered no appearance, and took no part in this proceeding. The in-

trastate rates attacked by the carriers in Docket No. 16335 are those prescribed by that commission in its order of February 11, 1924, and which rates became effective March 15 of that year. The rates then required to be published were 12 per cent lower than the rates theretofore in effect, and which had been maintained since 1909, as revised by the general rate changes. Again on January 30, 1925, the South Carolina commission ordered a still further reduction in the carload rates on fertilizer and materials, but this order was temporarily enjoined by the Federal Court for the Eastern District of South Carolina, and the proceeding was still pending when the final hearing was held in the instant case.

Joint rates in South Carolina are made 20 per cent less than the full combination.

The alleged disparity between the intrastate and interstate rates is illustrated by the following examples:

| From | To | Distance, miles | Present Rates, cents | Royster Scale, cents | Tentative Scale, cents |
|---|---|---|---|---|---|
| Charlotte, N. C. | Cornwell, S. C. | 52 | 237 | 192 | 165 |
| Columbia, S. C. | Cornwell, S. C. | 55 | 179 | 192 | 165 |
| Wadesboro, N. C. | Middendorf, S. C. | 64 | 237 | 203 | 175 |
| Columbia, S. C. | Middendorf, S. C. | 68 | 188 | 214 | 180 |
| Wadesboro, N. C. | Scranton, S. C. | 85 | 237 | 237 | 195 |
| Charleston, S. C. | Scranton, S. C. | 82 | 209 | 237 | 195 |
| Wilmington, S. C. | Winona, S. C. | 101 | 259 | 259 | 220 |
| Charleston, S. C. | Winona, S. C. | 112 | 248 | 270 | 230 |
| Augusta, Ga. | Yenome, S. C. | 61 | 203 | 203 | 175 |
| Columbia, S. C. | Yenome, S. C. | 68 | 188 | 214 | 180 |
| Augusta, Ga. | Springfield, S. C. | 58 | 203 | 203 | 170 |
| Columbia, S. C. | Springfield, S. C. | 43 | 158 | 180 | 155 |
| Augusta, Ga. | Hagwood, S. C. | 130 | 304 | 270 | 240 |
| Charleston, S. C. | Hagwood, S. C. | 130 | 268 | 270 | 240 |
| Savannah, Ga. | Springfield, S. C. | 109 | 270 | 259 | 229 |
| Charleston, S. C. | Springfield, S. C. | 101 | 238 | 259 | 220 |
| Savannah, Ga. | Pelion, S. C. | 129 | 304 | 270 | 240 |
| Charleston, S. C. | Pelion, S. C. | 121 | 258 | 270 | 240 |
| Savannah, Ga. | Ward, S. C. | 156 | 338 | 315 | 270 |
| Charleston, S. C. | Ward, S. C. | 150 | 288 | 293 | 260 |
| Savannah, Ga. | Westminster, S. C. | 324 | 473 | 439 | 410 |
| Charleston, S. C. | Westminster, S. C. | 301 | 337 | 428 | 400 |
| Atlanta, Ga. | Kings Creek, S. C. | 220 | 383 | 349 | 330 |
| Augusta, Ga. | Kings Creek, S. C. | 199 | 372 | 338 | 310 |
| Charleston, S. C. | Kings Creek, S. C. | 240 | 337 | 372 | 350 |

[fol. 1000] Many other comparisons were made, including interstate rates into South Carolina with the South Carolina distance scale. This further showing is similar to the foregoing, and need not be detailed here. For convenient determination of the relationship between the present intrastate rates and the examiner's tentative scale, the following comparison is made. Appended thereto are also the South Carolina rates which stand temporarily enjoined.

| Distance miles | Present rates in South Carolina | Examiner's tentative scale (a) | South Carolina rates temporarily enjoined (a) |
|---|---|---|---|
| 5 | 90 | | 80 |
| 10 | 90 | 90 | 86 |
| 15 | 109 | 100 | 98 |
| 20 | 119 | 110 | 114 |
| 25 | 129 | 120 | 123 |
| 35 | 139 | 140 | 133 |
| 45 | 158 | 155 | 151 |
| 50 | 169 | 160 | 161 |
| 60 | 179 | 170 | 171 |
| 70 | 188 | 180 | 179 |
| 75 | 198 | 185 | 179 |
| 85 | 209 | 195 | 189 |
| 90 | 218 | 200 | 199 |
| 100 | 228 | 210 | 208 |
| 110 | 238 | 220 | 217 |
| 115 | 248 | 230 | 217 |
| 125 | 258 | 240 | 227 |
| 130 | 268 | 240 | 236 |
| 135 | 277 | 250 | 236 |
| 140 | 277 | 250 | 247 |
| 145 | 288 | 260 | 247 |
| 150 | 288 | 260 | 255 |
| 160 | 297 | 270 | 264 |
| 180 | 307 | 290 | 283 |
| 190 | 317 | 300 | 292 |
| 210 | 327 | 320 | 302 |
| 300 | 337 | 390 | 321 |
| 320 | | 410 | 331 |

(a) The mileage blocks under this scale do not in all cases correspond with those shown.

[fol. 1001] The Southern States Phosphate & Fertilizer Company, with factories at Savannah and Augusta, showed the disadvantage it has been under since March 15, 1924, in marketing its products at South Carolina destinations. Savannah and Augusta meet their principal competition from Charleston and Columbia, respectively. The average difference in rates in favor of Charleston is said to be around 40 cents per ton, and about 23 cents per ton in favor of Columbia. This company claims reparation based solely on the foregoing showing of disparity, but its only allegation is that of undue prejudice, and under this violation of the law a mere difference in rates does not alone necessarily measure the amount, or prove the fact, of a shipper's damage.

Penna. R. R. Co. v. International Coal Co. 230 U. S. 184; Kerr & Co. v. S. S. Ry. Co., 62 I. C. C. 296.

During the first six months of 1923, there were shipped 1,530 cars of fertilizer and fertilizer materials from interstate points to destinations on the Southern in South Carolina, while during the same period 3,816 cars moved in intrastate commerce in that State to Southern Railway destinations, showing the preponderance of intrastate traffic.

Unquestionably the present rates in South Carolina unduly prejudice interstate localities and shippers, and unduly prefer shippers located at South Carolina points. Furthermore, the reduced intrastate rates prescribed by the South Carolina commission in its order of January 30, 1925, if permitted to become effective, would result, it is believed, in unjust discrimination against interstate commerce, and in undue prejudice to interstate localities and shippers. As compared with the examiner's tentative scale, however, the present rates in South Carolina would not, on the whole, result in such unjust discrimination or undue prejudice.

With respect to the intrastate cases the Commission should find—

1. That the maintenance of intrastate rates in Alabama lower than the corresponding rates herein found reasonable for the interstate transportation of fertilizer and fertilizer materials will result in injust discrimination against interstate commerce, and in undue prejudice to interstate shippers and localities.

[fol. 1002] 2. That, in view of the rates herein proposed as reasonable, the maintenance of the present intrastate rates in Georgia will not for the future result on the whole, in undue prejudice to interstate shippers or localities, nor in unjust discrimination against interstate commerce. Such few rates as are not on a parity with the rates herein found reasonable should be revised in harmony therewith, and it is not doubted that the Georgia Commission will willingly take such action as may be necessary without the entry of an order in the premises.

3. That, in view of the rates herein proposed as reasonable, the maintenance of the present intrastate rates in South Carolina will not for the future result, on the whole, in undue prejudice to interstate shippers and localities, nor in unjust discrimination against interstate commerce. Here, too, there may be a few instances where the intrastate rates are lower than the scale proposed herein, but it is believed that the South Carolina commission will have no hesitation in authorizing the carriers to bring such individual rates up to the proper level.

No orders should be entered in these State cases, Docket Nos. 16335, 16336, and 16484, at this time. It is believed that the respective State commissions will cooperate in authorizing such revisions as may be necessary to bring their rates in harmony with the interstate adjustment.

## Cottonseed Meal

The cottonseed meal interests state that this commodity has been included in the list of fertilizer materials since 1889, and they now seek a finding by this Commission that it should be so continued without reservation. The carriers are willing to continue that rating for the present, but they strongly object to that classification being fastened upon them for all time to come. While in the southeast the predominant use of cottonseed meal is that of fertilization, in the southwest and in official territory it is used almost entirely for feeding purposes, and it is the carriers' thought that as time goes on it may be used more and more for the latter purpose also in the southeast until some day the classification should more appropriately be that of feed than of fertilizer material.

[fol. 1003] In the season of 1923-24 over 600,000 tons of cottonseed meal were produced in the southeast, and the meal interest roughly estimate that about 73 per cent of this tonnage was used as a fertilizer or fertilizer material. Its fertilizing characteristics are especially desirable in tobacco growing, although it is also used to quite an extent on cotton and other crops, principally in combination with other materials. The price of cottonseed meal was said to have been about $35 a ton when the crushing season opened in 1925.

The position of the meal interests with respect to the finding desired by them is not clearly understood. Surely it cannot be their thought that the Commission can reach a conclusion at this time which will be beyond reconsideration in the future. The Commission has never felt bound by the doctrine of res adjudicata, and it should not be invoked in this instance.

Cottonseed meal should at the present time be classified as a fertilizer material in the southeast, and it is recommended that the Commission should so find, but beyond this the Commission should not go, nor, indeed, can it go.

## Cyanamid

Cyanamid is manufactured by the American Cyanamid Company, a Maine corporation at Niagara Falls, Ontario, the only point of production in North America. As already stated, it is a product obtained by combining the nitrogen of the air with lime and coke, and in its marketable state is a grayish powder containing about 26 per cent ammonia. It is said to be the cheapest form of organic ammonia available. Besides its value as an ammoniate, it is claimed to be a fine conditioner of fertilizer mixtures, making the latter dry and friable, and easy to apply to the soil. Owing to its high lime content, however, only about 60 pounds can be used normally in a ton of commercial fertilizer. For the first six months of 1925 it was stated that the price of cyanamid, f. o. b. origin, was $1.68 per unit of ammonia, which it is understood figures $43.68 per ton of cyanamid. It is shipped in burlap bags containing 200 pounds each, the average car loading is around 50,000 pounds, and no loss or damage claims have ever been filed. The production of cyanamid has been steadily increasing, over 62,000 [fol. 1004] tons having been shipped from Niagara Falls

during the year ended March 31, 1925. 56 per cent of this tonnage went into the southeast. During the same period, over 14,000 tons were imported from European countries, most of which was used in the southern States.

No joint rates are in effect to the southeast, and this company seeks proportional rates from the Ohio River Crossings and Virginia Cities made 62 per cent of whatever distance scale may be adopted for general application. It shows that at the present time it has commodity rates to many points in official territory which approximate 70 per cent of the sixth-class rates, the rating accorded fertilizer and materials in that territory, and that to the Virginia Cities it has a proportional rate, applicable on traffic destined to the southeast, of $5.40 a ton, which is 62.7 per cent of the sixth-class rate. This latter affords the basis for the rates sought.

To points in South Carolina, the average through charge is shown to be a little over $10 a ton, with a weighted average rate of $8.99. To Alabama, the weighted average rate is $9.37, and the average through charge $9.66. The adoption of the tentative scale recommended herein would not materially affect the through charges.

It was shown that shipments made to destinations in Alabama, Georgia, North Carolina, South Carolina, and Florida during the year ending March 31, 1925, moved a weighted average distance of 414 miles beyond the Virginia Cities, at a weighted average rate of $4.54, and it is strongly urged that as the average haul of cyanamid in southern territory is approximately four times greater than that of fertilizer, it is entitled to rates on a considerably lower basis than the correspondingly local rates from these gateways.

In Southern Class Rate Investigation, supra, joint rates, with certain exceptions, were prescribed as reasonable from points in official territory to destinations in the south substantially lower than the combination basis over the Ohio River or the Virginia Cities, thus in effect condemning combination rates between these territories on class traffic. The cyanamid interests urge that the principle there recognized applies with even greater force to com- [fol. 1005] modity rates. Where the hauls are over well-established routes embracing no unusual difficulties at the

interchange points, it is unreasonable to maintain through rates based on local factors, unless it is clearly shown that one or more of such factors are on a relatively low level. A representative of the Louisville & Nashville admitted that it might be desirable at some time in the future to establish proportional rates from the Ohio River; and, in lieu of joint rates, it is believed that rates somewhat lower than the locals from the gateways are not only desirable but proper.

The short-line distances from Niagara Falls to Norfolk is about 600 miles, which, added to the weighted average haul above shown, 414 miles, makes a total carriage of 1014 miles for which the average through rate is around $10. For a haul of 1000 miles in southern territory, a rate of $6.80 is herein proposed.

62 per cent of the tentative joint-line rate of $4.75 for 414 miles is $2.95, yielding a ton-mile revenue of 7.1 mills, and a car-mile revenue, based on the average loading of 25 tons, of 18 cents. We are not convinced that so great a differential between the proportional and local rates should here be required as is sought by the cyanamid interests. The record contains nothing with respect to whether or not the rates north of the gateways are on a proper basis.

It is recommended that the Commission find that reasonable maximum proportional rates for the transportation of cyanamid from the Ohio River Crossings and from the Virginia Cities, applicable on traffic originating beyond those gateways, will be rates made 80 per cent of the distance scale herein prescribed. Whether or not these proportional rates should be limited to apply only on cyanamid is not now passed upon, but there would seem to — no good reason why they should be so limited.

## Summary of Proposed Findings

1. Fertililizer and fertilizer materials found to be entitled to relatively low rates because of their importance to agriculture, and because of the direct and indirect tonnage accruing to the carriers through their use.

2. Reasonable single and joint line rates on fertilizer and fertilizer materials prescribed for application between all [fol. 1006] points in the southeast, as described in Appendix A. Certain groupings authorized from the Ohio River.

3. An arbitrary of 50 cents a ton prescribed when the transportation is in connection with so-called short or weak lines, such arbitrary to accrue to these carriers. Rates in connection with the Norfolk Southern made 10 per cent higher than the distance scale, but in no case to exceed 50 cents a ton, this excess to accrue to the Norfolk Southern.

4. Fourth Section relief granted, subject to such limitations as may be imposed in Brick and Clay Products in the South, supra.

5. The intrastate rates in Alabama found to unjustly discriminate against interstate commerce, and to unduly prejudice interstate shippers and localities.

6. The intrastate rates in Georgia and South Carolina found not to be unlawful for the future, except in isolated cases.

7. Proportional rates prescribed from the Ohio River Crossings and Virginia Cities, applicable on cyanamid originating beyond those gateways.

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## Appendix A

At a General Session of the Interstate Commerce Commission, Held at Its Office, in Washington, D. C., on the 7th Day of October, A. D. 1924

### No. 16295

### Fertilizers and Fertilizer Materials Between Southern Points

### Order

It appearing, That in many instances interstate rates on fertilizers, fertilizing compounds, and fertilizer materials between points in southern classification territory differ materially for substantially similar hauls and that many of [fol. 1007] said rates are higher for shorter distances than for longer distances over the same line or route;

And it appearing, from numerous formal and informal complaints to this commission that said interstate rates on

fertilizers, fertilizing compounds, and fertilizer materials are in general unsatisfactory to shippers thereunder, that a general revision thereof has been proposed by the carriers serving said territory, and that petitions have been filed by carriers operating in the states of South Carolina and Alabama, alleging that the rates on fertilizers and fertilizer materials in effect within those states cause undue and unreasonable advantage, preference and prejudice as between persons and localities in interstate commerce on the one hand and intrastate commerce on the other;

It is ordered, That a proceeding of investigation and inquiry *That a proceeding of investigation and inquiry* be, and it is hereby instituted by this commission on its own motion into and concerning said interstate rates on fertilizers, fertilizing compounds, and fertilizer materials and the charges resulting therefrom applicable between points in the territory described in the next following paragraph, with a view to determining whether said rates and charges are unreasonable or are unduly prejudicial to or unduly preferential of particular localities or persons and to making such order or orders as may be proper in the premises.

It is further ordered, That said proceeding of investigation and inquiry shall include said rates and charges applicable in interstate commerce between points in the following territory:

1. Between points in the states of Kentucky (except local points on the Chesapeake & Ohio Railway), Tennessee, Mississippi, Alabama, Georgia, Florida, North Carolina, South Carolina, and Louisiana east of the Mississippi River; also between points on the north bank of the Ohio River, Cairo, Ill., to Cincinnati, Ohio, inclusive, and Helena, Ark., on the one hand, and points in the above-named states on the other.

2. Between points in the state of Virginia on the one hand and points in the states of Kentucky (except local points on the Chesapeake & Ohio Railway and south bank Ohio River crossings), Tennessee, Mississippi Alabama, [fol. 1008] Georgia, Florida, South Carolina, North Carolina, and Louisiana east of the Mississippi River on the other.

It is further ordered, That the common carriers named in the appendix (a) hereto be, and they are hereby, made respondents to the proceeding.

And it is further ordered, That this proceeding be assigned for hearing at such times and places as the commission may hereafter direct.

By the Commission.

George B. McGinty, Secretary. (Seal.)

## Appendix B

### Docket No. 16295

Joint resolution directing the Interstate Commerce Commission to take action relative to adjustments in the rate structure of common carriers subject to the Interstate Commerce Act, and the fixing of rates and charges

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That it is hereby declared to be the true policy in rate making to be pursued by the Interstate Commerce Commission in adjusting freight rates that the conditions which at any given time prevail in our several industries should be considered in so far as it is legally possible to do so, to the end that commodities may freely move.

That the Interstate Commerce Commission is authorized and directed to make a thorough investigation of the rate structure of common carriers subject to the interstate commerce act, in order to determine to what extent and in what manner existing rates and charges may be unjust, unreasonable, unjustly discriminatory, or unduly preferential, thereby imposing undue burdens, or giving undue advantage as between the various localities and parts of the country, the various classes of traffic, and the various classes and kinds of commodities, and to make, in accordance with law, such changes, adjustments, and redistribution of rates [fol. 1009] and charges as may be found necessary to correct any defects so found to exist. In making any such changes, adjustment, or redistribution the commission shall give due regard, among other factors, to the general and comparative levels in market value of the various classes

(a) Omitted because of length.

and kinds of commodities as indicated over a reasonable period of years to a natural and proper development of the country as a whole, and to the maintenance of an adequate system of transportation. In the progress of such investigation the commission shall, from time to time, and as expeditiously as possible, make such decisions and orders as it may find to be necessary or appropriate upon the record then made in order to place the rates upon designated classes of traffic upon a just and reasonable basis with relation to other rates. Such investigation shall be conducted with due regard to other investigations or proceedings affecting rate adjustments which may be pending before the commission.

In view of the existing depression in agriculture, the commission is hereby directed to effect with the least practicable delay such lawful changes in the rate structure of the country as will promote the freedom of movement by common carriers of the products of agriculture affected by that depression, including livestock, at the lowest possible lawful rates compatible with the maintenance of adequate transportation service: Provided, That no investigation or proceeding resulting from the adoption of this resolution shall be permitted to delay the decision of cases now pending before the commission involving rates on products of agriculture, and that such cases shall be decided in accordance with this resolution.

Approved, January 30, 1925.

[fol. 1010] Appendix C

Docket No. 16295

List of Fertilizer Materials on Which Carriers' Proposed Rates Will Apply

Carload

Ammonia, sulphate of, in packages or in bulk, C. L., minimum weight 40,000 pounds.

Ashes:

Bagasse, cactus, cotton boll, burr or seed hull, manure, sage brush or wood, in packages or in bulk, C. L., minimum weight 30,000 pounds.

Kelp, in bags, C. L., minimum weight 30,000 pounds.

Rice hull, in packages or in bulk, C. L., minimum weight 30,000 pounds.

Beet slops (beet sugar final molasses residuum), in tank cars, C. L., subject to Rule 35 of Southern Classification.

Blood, dried, in bulk, in bags or barrels, or in bulk, C. L., minimum weight 40,000 pounds.

Bone, charred, filtering (animal charcoal), spent, in bags, C. L., minimum weight 36,000 pounds.

Bones, other than human or fresh meat bones:

Ground, in bags or barrels, C. L., minimum weight 30,000 pounds.

Not ground, in packages or in bulk, C. L., minimum weight 30,000 pounds.

Castor bean hulls or stems, ground or not ground, in packages or in bulk, C. L., minimum weight 30,000 pounds.

Castor pomace, in bags or in bulk, C. L., minimum weight 40,000 pounds.

Cement flue dust, in packages or in bulk, C. L., minimum weight 40,000 pounds.

Cocoa beans shells, ground, in bulk in bags, C. L., minimum weight 40,000 pounds.

Cottonseed cake or meal, loose or in bags, C. L., minimum weight 40,000 pounds.

Cottonseed hulls, not ground, in packages or in bulk, C. L., minimum weight 30,000 pounds.

[fol. 1011] Cottonseed hulls, ground (cottonseed hull bran), in bags, C. L., minimum weight 30,000 pounds.

Cyanamid, in packages or in bulk, C. L., minimum weight 40,000 pounds.

Distillery molasses fertilizer residuum (dry or liquid residuum from molasses distillation):

Liquid, in tank cars, C. L., subject to Rule 35 of Southern Classification.

Dry, in bags, barrels or boxes, C. L., minimum weight 36,000 pounds.

Fertilizer blacks (refuse black material for coloring fertilizers), in bulk in bags or barrels, C. L., minimum weight 36,000 pounds.

Fertilizer wool refuse, in machine pressed bales, C. L., minimum weight 30,000 pounds, subject to Rule 34.

Fertilizer compounds (manufactured fertilizers), N. O. I. B. N., dry, in bulk in cloth or paper bags, or in bulk in barrels or boxes, C. L., minimum weight 30,000 pounds.

Fish scrap, dry, not ground nor pulverized, or acid fish scrap, in packages or in bulk, C. L., minimum weight 36,000 pounds.

Grape pomace:

Dry, in packages or in bulk, C. L., minimum weight 36,000 pounds.

Other than dry, in packages or in bulk, C. L., minimum weight 36,000 pounds.

Iron or steel flue dust, in packages or in bulk, C. L., minimum weight 50,000 pounds.

Lime nitrogen:

In iron or steel barrels, C. L., minimum weight 40,000 pounds.

In tank cars, C. L., subject to Rule 35 of Southern Classification.

Lime (calcium), nitrate of, in double bags or in bulk in barrels, C. L., minimum weight 40,000 pounds.

Meal:

Hoof or Horn, in bags or in bulk, C. L., minimum weight 30,000 pounds.

Kapok seed, in bags or in bulk, C. L., minimum weight 60,000 pounds.

Rape seed, in packages or in bulk, C. L., minimum weight 40,000 pounds.

[fol. 1012] Senna bean, in bags, C. L., minimum weight 40,000 pounds.

Mussel meat, not edible, dry, in bags or barrels, C. L., minimum weight 30,000 pounds.

Peanut oil cake or oil cake meal, in bags, or in bulk, C. L., minimum weight 40,000 pounds.

Peat:

Ground, in packages or in bulk, C. L., minimum weight 36,000 pounds.

Not ground, in packages or in bulk, C. L., minimum weight 36,000 pounds.

Phosphate, basic, in packages or in bulk, C. L., minimum weight 40,000 pounds.

Phosphate Rock:
Ground or pulverized:
Acidulated (acid phosphate), in packages or in bulk, C. L., minimum weight 40,000 pounds.
Acidulated and ammoniated, in packages or in bulk, C. L., minimum weight 40,000 pounds.
Potassium (potash):
Alkali salts, crude, dry, in packages or in bulk, C. L., minimum weight 40,000 pounds.
Beet or cane residuum, in bags, C. L., minimum weight 40,000 pounds.
Carbonate of, crude, in bulk in barrels, C. L., minimum weight 40,000 pounds.
Hartsalz, Kainit, Manure salts, double manure salts or sylvanit, in packages or in bulk, C. L., minimum weight 40,000 pounds.
Muriate of (chloride of potassium), in bags or in bulk in barrels or boxes, or in bulk, C. L., minimum weight 40,000 pounds.
Sulphate of, in bags or in bulk in barrels or boxes, or in bulk, C. L., minimum weight 40,000 pounds.
Tobacco crystals (tobacco potash salts), in bags or barrels, C. L., minimum weight 40,000 pounds.
Sea grass, sea moss or sea weed:
Kelp, dried or ground, in bags, C. L., minimum weight 30,000 pounds.
Sesame oil cake or oil cake meal, in bags or in bulk, C. L., minimum weight 40,000 pounds.
[fol. 1013] Shells, clam, mussel or oyster:
Crushed or ground, in packages or in bulk, C. L., minimum weight 36,000 pounds.
Not crushed nor ground, in packages or in bulk, C. L., minimum weight 40,000 pounds.
Sodium (soda):
Nitrate of (Chili saltpetre), in bags or in bulk in barrels or boxes, or in bulk, C. L., minimum weight 40,000 pounds.
Nitre cake (crude bi-sulphate of soda), in packages or in bulk, C. L., minimum weight 40,000 pounds.
Soil compounds, containing two or more of the following ingredients:

Potash
Phosphates,

Sulphates,
Limes,
Silicates,
Magnesia,
Carbonates,
Iron oxides,
Chlorides,
Manganese,
Carload minimum weight 30,000 pounds.

Soy (soja or soya) bean oil cake or oil cake meal, loose or in bags, C. L., minimum weight 40,000 pounds.

Sugar cake mud (refuse from sugar filter presses), in bags, C. L., minimum weight 40,000 pounds.

Sulphur (brimstone), in bulk in bags or in bulk, C. L., minimum weight 40,000 pounds.

Tankage:

Garbage, dry, in bags or in bulk, C. L., minimum weight 40,000 pounds.

Tankage, NOIBN, in bags or in bulk, C. L., minimum weight 40,000 pounds.

Tobacco, unmanufactured, stems, ground, in bags, C. L., minimum weight 40,000 pounds.

Tobacco dust, refuse, sand or waste, in packages or in bulk, C. L., minimum weight 30,000 pounds.

[fol. 1014] Less Carload

Ashes:

Bagasse, cactus, cotton boll, burr or seed hull, manure, sage brush or wood, in bags.

Kelp, in bags.

Rice hull, in bags.

Bones, other than human or fresh meat bones:

Ground, in bags or barrels.

Not ground in bags or barrels, or in barrels with cloth tops.

Castor bean hulls or stems, ground or not ground, in bags or barrels.

Cottonseed cake or meal, in bags.

Cottonseed hulls:

Not ground, in bags or barrels, or in machine pressed bales.

Ground (cottonseed hull bran), in bags.

Cyanamid, in bags or barrels.
Fertilizing compounds (manufactured fertilizers), N. O. I. B. N., dry in bulk in bags, barrels or boxes.
Lime (calcium), nitrate of, in double bags or in bulk in barrels.
Mussel meat, not edible, dry, in bags or barrels.
Peanut oil cake or oil cake meal, in bags.
Phosphate, basic, in bags.
Phosphate rock:
Ground or pulverized:
Acidulated (acid phosphate), in bags or barrels.
Acidulated and ammoniated, in bags or barrels.
Potassium (potash):
Alkali salts, crude, dry, in bulk in bags, barrels or boxes.
Hartsalz, kainit, manure salts, double manure salts or sylvanit, in bags, barrels or boxes.
Muriate of (chloride of potassium), in bags or in bulk in barrels or boxes.
Sulphate of, in bags or in bulk in barrels or boxes.
Tobacco crystals (tobacco potash salts), in bags or barrels.
Sea grass, sea moss or sea weed:
Kelp, dried or ground, in bags.
[fol. 1015] Shells, clam, mussel or oyster:
Crushed or ground, in bulk in bags, barrels or boxes.
Not crushed nor ground, in bags, barrels or boxes.
Sodium (soda), nitrate of (Chili saltpetre), in bags, or in bulk in barrels or boxes.
Soy (soja or soya) bean oil cake or oil cake meal, in bags.
Tankage:
Garbage, dry, in bags.
Tankage, N. O. I. B. N., in bags.
Tobacco, unmanufactured, stems, ground, in bags.

## Appendix D

### Docket No. 16295

### Memphis-Southwestern Scales

| Distance (miles) | Single line (cents) | Joint line (cents) |
|---|---|---|
| 5 | 100 | 120 |
| 10 | 100 | 120 |
| 15 | 110 | 130 |
| 20 | 120 | 140 |
| 25 | 130 | 150 |
| 30 | 130 | 150 |
| 35 | 140 | 160 |
| 40 | 150 | 170 |
| 45 | 160 | 180 |
| 50 | 160 | 180 |
| 55 | 170 | 190 |
| 60 | 180 | 200 |
| 65 | 180 | 200 |
| 70 | 190 | 210 |
| 75 | 190 | 210 |
| 80 | 200 | 220 |
| 85 | 210 | 230 |
| 90 | 210 | 230 |
| 95 | 220 | 240 |
| 100 | 230 | 250 |
| 105 | 230 | 250 |
| 110 | 240 | 260 |
| 120 | 250 | 170 |
| [fol. 1016] 125 | 260 | 280 |
| 130 | 270 | 290 |
| 135 | 270 | 290 |
| 140 | 280 | 300 |
| 150 | 290 | 310 |
| 160 | 300 | 320 |
| 170 | 310 | 330 |
| 180 | 320 | 340 |
| 190 | 330 | 350 |
| 200 | 340 | 360 |
| 210 | 350 | 370 |
| 220 | 360 | 380 |

| Distance (miles) | Single line (cents) | Joint line (cents) |
|---|---|---|
| 230 | 370 | 390 |
| 240 | 380 | 400 |
| 250 | 390 | 410 |
| 260 | 390 | 410 |
| 280 | 410 | 430 |
| 300 | 420 | 440 |
| 320 | 440 | 460 |
| 340 | 450 | 470 |
| 360 | 460 | 480 |
| 380 | 480 | 500 |
| 400 | 490 | 510 |
| 425 | 500 | 520 |
| 450 | 510 | 530 |
| 475 | 530 | 550 |
| 500 | 540 | 560 |
| 525 | 560 | 560 |
| 550 | 570 | 570 |
| 575 | 580 | 580 |
| 600 | 590 | 590 |
| 625 | 600 | 600 |
| 650 | 610 | 610 |
| 675 | 620 | 620 |
| 700 | 630 | 630 |
| 725 | 640 | 640 |
| 750 | 650 | 650 |
| 775 | 660 | 660 |
| 800 | 670 | 670 |

[fol. 1017] Appendix E

Docket No. 16295

Aberdeen & Rockfish Railroad Company.
Alabama, Florida & Gulf R. R. Company.
Andalusia Florida & Gulf Railway Company.
Atlantic & Western R. R. Company.
Atlantic & Yadkin Railway.
Bamberg, Erhardt & Waterboro Railroad Company.
Bennettsville & Cheraw Railroad Company.
Birmingham & Southeastern Railway Company.
Blue Ridge Railway.

Buffalo, Union-Carolina Railroad.
Carolina & Northwestern Railway Company.
Charlotte Harbor & Northern Railway.
Charlotte, Monroe & Columbia Railroad.
Chattahoochee Valley Railway Company.
Chesterfield and Lancaster Railroad Company.
Collins & Glenville Railroad Company.
Columbia, Newberry & Laurens Railroad Company.
Cumberland and Manchester Railroad Company.
Danville & Western Railway Company.
Dover and Southbound Railroad Company.
East Tennessee & Western N. C. R. R. Co.
East and West Coast Railway.
Elberton & Eastern Railroad Company.
Fernwood, Columbia & Gulf Railroad Company.
Flemingsburg & Northern Railroad Company.
Flint River & Northeastern Railroad Company.
Florida, Central & Gulf Railway.
Frankfort & Cincinnati Railway Company.
Garyville Northern Railroad Company.
Georgia, Ashburn, Sylvester & Camilla Railway.
Georgia, Florida & Alabama Railway Company.
Georgia Northern Railway Company.
Georgia & Florida Railway.
Gainesville & Northwestern Railroad Company.
Greene County Railroad Company.
Greenville & Northern Railway Company.
Hampton & Branchville Railroad Company.
High Point, Randleman, Ashboro & So. R. R.
[fol. 1018] High Point, Thomasville & Denton R. R. Co.
Kentucky & Tennessee Railway.
Lancaster & Chester Railway Company.
Laurinburg & Southern Railroad Company.
Lawndale Railway & Industrial Company.
Live Oak, Perry & Gulf Railroad Company.
Louisville & Wadley Railroad Company.
Macon, Dublin & Savannah Railroad Company.
The Marianna & Blountstown R. R. Co.
Maxton, Alma & Southbound Railroad Company.
Moore Central Railway.
Morgan & Fentress Railway Company.
Muscle Shoals, Birmingham & Pensacola Railway.

The Natchez, Columbia & Mobile R. R. Co.
The Northwestern Railroad of South Carolina.
Oneida & Western Railroad Company.
Pearl River Valley Railroad Company.
The Pickens Railroad Company.
Raleigh & Charleston Railroad Company.
Savannah & Atlanta Railway.
Savannah & Statesboro Railway Company.
Shearwood Railway.
Statesboro Northern Railroad Company.
Sylvania Central Railway Company.
Tallulah Falls Railway Company.
Tampa and Gulf Coast Railroad Company.
Tampa & Jacksonville Railway Company.
Tampa Northern Railroad Company.
Tavares & Gulf Railroad.
Tennessee, Kentucky & Northern R. R. Co.
Townsville Railroad Company.
The Union Point & White Plains R. R. Co.
Wadley Southern Railway Company.
Ware Shoals Railroad Company.
Washington & Lincolnton Railroad Company.
Wellington & Powellsville R. R. Co.
Wrightsville & Tennille Railroad Company.
Yadkin Railroad Company.

[fol. 1019]

## Appendix F

### Docket No. 16295

### Fourth-section Applications Set for Hearing In Connection with This Proceeding

| Filed by | Application No. |
|---|---|
| Aberdeen & Ashboro R. R. Co. | 4309 |
| Aberdeen & Rockfish R. R. Co. | 600 |
| Alabama & Vicksburg Ry. Co. | 601 |
| Alabama Great Southern R. R. Co. | 542 |
| Appalachicola Northern R. R. Co. | 3794 |
| Atlanta & West Point R. R. Co. | 1024 |
| Atlanta, Birmingham & Atlantic R. R. Co. | 972 |
| Atlantic & Western R. R. Co. | 2639 |
| Atlantic Coast Line R. R. Co. | 703 |

| Filed by | Application No. |
|---|---|
| Augusta Southern R. R. Co. | 1546 |
| Bennettsville & Cheraw R. R. Co. | 224 |
| Blue Ridge Ry. Co. | 1545 |
| Bonlee & Western Ry. Co. | 609 |
| Brimstone R. R. & Canal Co. (The) | 4147 |
| Brookhaven & Pearl River R. R. Co. | 3610, 4301 |
| Cadiz R. R. Co. | 1919 |
| Carolina & Northwestern Ry | 60 |
| Carolina, Clinchfield & Ohio Ry. | 1478 |
| Carolina, Clinchfield & Ohio Ry. of S. C. | 1479 |
| Central of Georgia Ry. Co. | 1530 |
| Charlotte Harbor & Northern Ry. | 4149 |
| Chattahoochee Valley Ry. Co. | 1576 |
| Chattanooga Southern R. R. Co. | 540 |
| Chesapeake & Ohio Ry. Co. (The) | 1747, 1752, 1756 |
| Chesterfield & Lancaster R. R. | 4023 |
| Chicago, Memphis & Gulf R. R. Co. | 1916 |
| Cincinnati, Burnside & Cumberland River Ry. | 3971 |
| Cincinnati, New Orleans & Texas Pac. Ry. Co. (The) | 3965 |
| | 3966 |
| | 3967 |
| | 3968 |
| [fol. 1020] Danville & Western Ry. | 1544 |
| Dover & Southbound R. R. Co. | 1070 |
| Durham & Charlotte R. R. | 225 |
| Durham & Southern Ry. Co. | 1047 |
| East Tennessee & Western North Carolina R. R. Co. | 4144 |
| Edgmoor & Manetta Ry. Co. | 4503 |
| Fernwood & Gulf R. R. Co. | 4302, 1912 |
| Fitzgerald, Ocilla & Broxton R. R. Co. | 541 |
| Flint River & Northeastern R. R. | 222 |
| Florida Central R. R. Co. | 115 |
| Florida East Coast Ry. | 5095 |
| Florida Ry. Co. | 3979 |
| Gainesville Midland Ry. | 117 |
| Georgia & Florida Ry. | 789 |
| Georgia, Florida & Alabama Ry. Co. | 3692 |
| Georgia Northern Ry. Co. | 221 |
| Georgia R. R. | 3918 |
| Georgia Southern & Florida Ry. Co. | 2029 |

| Filed by | Application No. |
|---|---|
| Georgia Southwestern & Gulf R. R. Co. | 4048 |
| Greenville & Knoxville Ry. | 1542 |
| Gulf & Ship Island R. R. Co. | 484 |
| Gulf Line Ry. Co. | 890 |
| Harriman & Northeastern R. R. Co. | 3975 |
| Hartwell Ry. | 1543 |
| Illinois Central R. R. Co. | 2045 |
| Jackson R. R. Co. (The) | 1915 |
| Kentucky Midland R. R. Co. | 3580 |
| Kentwood & Eastern Ry. Co. | 1986 |
| Kinston & Snow Hill R. R. Co. | 1076 |
| Kinston, Carolina R. R. & Lumber Co. | 1069 |
| Knoxville, Sevierville & Eastern Ry. Co. | 1541 |
| Lancaster & Chester Ry. Co. | 1540 |
| Lawndale Ry. | 3973 |
| Lexington Terminal R. R. Co. | 3915 |
| Little River R. R. Co. | 1538 |
| Live Oak, Perry & Gulf R. R. | 107 |
| Louisville & Nashville R. R. Co. | 1952 |
| Louisville, Henderson & St. Louis Ry. Co. | 1065 |
| Macon & Birmingham Ry. Co. | 2234 |
| Macon, Dublin & Savannah R. R. | 782 |
| Mississippi Central R. R. Co. | 1555 |
| Mobile & Ohio R. R. Co. | 2138 |
| Monroe R. R. Co. | 3916 |
| [fol. 1021] Mount Airy & Eastern Ry. Co. | 1483 |
| Nashville, Chattanooga & St. Louis Ry. (The) | 458 |
| Natchez, Columbia & Mobile R. R. Co. | 1918 |
| New Orleans & Northeastern R. R. Co. | 601 |
| New Orleans Great Northern R. R. Co. | 4297 |
| New Orleans, Mobile & Chicago R. R. Co. (The) | 4948 |
| New Orleans, Natalbany & Natchez Ry. Co. | 3930 |
| Norfolk & Western Ry. Co. | 1561 |
| Norfolk Southern R. R. Co. | 1074 |
| Northampton & Hartford Ry. | 4502 |
| North & South Carolina Ry. Co. | 4672 |
| Northern Alabama Ry. Co. | 1537 |
| Ocilla, Pinebloom & Valdosta R. R. Co. | 2023 |
| Ohio & Kentucky Ry. Co. | 4919 |
| Overton County R. R. and Geo. A. Clark, Rec. | 3933 |

| Filed by | Application No. |
|---|---|
| Pickens, R. R. | 1536 |
| Piedmont Ry. Co. | 1535 |
| Raleigh & Charleston R. R. Co. | 3927 |
| Raleigh & Southport Ry. Co. | 1030 |
| Roanoke River Ry. | 3925 |
| St. Louis & San Francisco Ry. | 799, 2346, 2353 |
| St. Marys & Kingsland R. R. Co. | 4642 |
| Sanford & Troy R. R. Co. | 220 |
| Savannah & Statesboro Ry. Co. | 3931 |
| Seaboard Air Line Ry. | 1573 |
| Smithsonia & Dunlap R. R. | 4920 |
| South Carolina Western Ry. Co. | 5021 |
| South Georgia Ry. Co. | 62 |
| Southern Ry. Co. | 1548 |
| Southern Ry. Co. in Mississippi | 2222 |
| Tallahassee & Montgomery Ry. Co. | 1022 |
| Tallulah Falls Ry. | 1534 |
| Tampa & Jacksonville Ry. Co. | 4641 |
| Tampa Northern R. R. Co. | 3548 |
| Tennessee & North Carolina R. R. Co. | 3662 |
| Tennessee Ry. Co. | 3968 |
| Tombigbee Valley R. R. Co. | 1533 |
| Tuskegee R. R. Co. | 1023 |
| Union & Glen Springs R. R. Co. | 3813 |
| Union Point & White Plains R. R. Co. | 3917 |
| Union Springs & Northern Ry. Co. | 1476 |
| Virginia & Southwestern Ry. Co. | 945 |
| Virginian Ry. Co. (The) | 927 |
| [fol. 1022] Ware Shoals R. R. Co. | 2981 |
| Western Railway of Alabama (The) | 1021 |
| Yazoo & Mississippi Valley R. R. Co. (The) | 2043 |
| A. D. Hall, Agent | 1613 |

EXHIBIT IN EVIDENCE

Exceptions on Behalf of the Alabama Public Service Commission to Report Proposed by Examiner H. W. Archer

BEFORE THE INTERSTATE COMMERCE COMMISSION

Docket 16295

Rates on Fertilizer and Fertilizer Materials Between Points in Southern Territory

Docket 16336

Rates on Fertilizer and Fertilizer Materials Within the State of Alabama

Exceptions on Behalf of the Alabama Public Service Commission to Report Proposed by Examiner H. W. Archer

Hugh White, Attorney; J. H. Alldredge, Chief Examiner, for the Alabama Public Service Commission.

BEFORE THE INTERSTATE COMMERCE COMMISSION

Docket 16293

Rates on Fertilizer and Fertilizer Materials Between Points in Southern Territory

Docket 16336

Rates on Fertilizer and Fertilizer Materials Within the State of Alabama

Exceptions on Behalf of the Alabama Public Service Commission to Report Proposed by Examiner H. W. Archer

[fol. 1023] In filing exceptions to the report in these proceedings, we think it only fair to say that we believe the examiner has made a very careful, painstaking and conscientious effort to do justice to all parties concerned. Although he has not upheld our views, or the views of any other party, in all particulars, at the same time we are convinced from a reading of the report that he has sought to

reach just and sound conclusions. While differing with some of these conclusions we desire to commend the examiner for his constructive work in this matter. With much of it we are in hearty accord. We are sorry to have to disagree with any of his conclusions, so thoroughly convinced are we that he has tried to do what is right.

Exceptions

I

Exception is taken to the measure of the proposed scale insofar as it exceeds the scale proposed by the representatives of the public.

II

Exception is taken to the gradation of the proposed scale between 500 and 600 miles, inclusive.

III

Exception is taken to the basis of rates proposed in the report for short lines.

IV

Exception is taken to the proposed minimum carload weight on cottonseed hulls.

V

Exception is taken to the proposed finding with respect to intrastate rates in the state of Alabama.

[fol. 1024] Argument

Exception I: Not much more can be said in the way of argument in support of the measure of the scale proposed by the representatives of the public (the Alabama scale extended) than has already been said in the briefs filed on behalf of various shippers, shippers' organizations and the Alabama Public Service Commission. We rely upon the evidence and the arguments already submitted to justify the Alabama scale, as extended and submitted by the representatives of the public, as the proper scale for general application in southern territory.

Exception II: In the scale proposed by the examiner on Sheet 40 of the proposed report there is a "hump" between 500 and 600 miles which should be eliminated. The scale progresses at the rate of 10 cents per ton for each 20-mile block from 280 miles up to and including 480 miles. This gradation is at the rate of ½ cent per ton per mile. Then at 480 miles the gradation increases to 15 cents per ton for each 25-mile block up to and including 600 miles, receding at that point to 10 cents per ton for each 25-mile block. Fifteen cents per ton for each 25-mile block is equivalent to 3/5 of a cent per ton per mile, which is a heavier rate of gradation than is applied between 280 miles and 480 miles and a heavier rate of gradation than is applied beyond 600 miles. This produces an unjustifiable "hump" in the scale between the distances we have mentioned.

Exception III: The examiner proposes that the rates for short lines be made by superimposing upon the standard-line scale a flat arbitrary of 50 cents per net ton (see Sheet 41 of the proposed report). The examiner must have overlooked the fact that it will be necessary to make three different applications of the rates over short lines as follows:

(a) For single-line transportation over short lines.

(b) For joint haul transportation between points exclusively on short lines.

(c) For joint-haul transportation between points on standard lines and points on short lines.

[fol. 1025] If the rates for single-line transportation over short lines are to be constructed by adding 50 cents per ton to the single-line rates proposed for the standard lines, then it is clear that the scale will be thrown out of balance, because the flat arbitrary of 50 cents per ton bears a much greater ratio to the rates for short hauls than for the longer hauls. It would completely unbalance the scale and unduly burden the short hauls. The rates suggested by the representatives of the public in this proceeding for single-line hauls over short lines were made on a basis of 12 per cent of the single-line scale for the standard lines, and in the traffic test it was shown that these rates would increase substantially the revenue of the short lines on this traffic. We submit that the proper way to construct a scale for single-line transportation over short lines is by increasing the scale for the standard lines by a fixed percentage, and

if a higher scale is adopted for the standard lines than the one proposed by the representatives of the public, then it is plain that increasing this scale 20 per cent would increase still further the revenue of the short lines on this traffic. The maximum basis for these rates should not be in excess of 120 per cent of the standard-line scale.

With respect to joint-haul traffic moving exclusively over short lines—of which there is a very small volume—the rates should be constructed by observing the same joint-haul differentials superimposed on the scale for single-line hauls as has been suggested for the standard lines.

In the case of rates for joint-haul transportation between points on standard lines and points on short lines—which are by far the most important—it would not be objectionable to use the principle suggested by the examiner instead of the one suggested by the representatives of the public. This might result in a more simple method of constructing these rates. But we submit that instead of using a flat arbitrary for all distances it should be graded according to distance, starting with a smaller arbitrary and gradually increasing it. The use of a flat arbitrary for all distances necessarily will throw out of balance any mileage scale that might be constructed. If the correct principles are observed in constructing the basis scale then those principles should not be nullified by using a flat arbitrary in [fol. 1026] constructing rates for another class of service. The suggested basis of the examiner for constructing rates for short lines would materially increase the revenues of these carriers on this traffic in the event they are able to hold the business, which they could not possibly do against the competition which they must meet.

Exception IV: It is not exactly clear to us just what minimum carload weight has been proposed by the examiner on cottonseed hulls. If it be 20 tons, then we respectively submit that it is too high for this commodity. The evidence shows that cottonseed hulls will not load to 20 tons in an ordinary 36-foot car. The cubical capacity is not sufficient to hold this weight, and of course it would not be right to put the minimum at 20 tons in the face of the fact that an ordinary car does not possess sufficient cubical capacity to hold this amount. The situation is different with respect to the other commodities. We may be mistaken,

however, in our understanding of what is proposed with respect to this commodity.

Exception VI: Recommendations of the examiner with respect to the intrastate rates in the state of Alabama we think are at variance with the law and the facts. His report touches this subject somewhat uncertainly when he says, on Sheet 47, that "an exact parity between intra- and interstate rates may not in all cases be required under the law." The Commission has stated definitely that the law does not require an exact parity between intrastate and interstate rates. That is also the holding of the United States Supreme Court. Such a thing would be impracticable if it were the law. We think this Commission should be willing to say definitely what the law is.

We think also that the examiner did not give due considerations in his comparisons of the Alabama intrastate rates with interstate rates to the existence of numerous specific interstate rates applying to, from and across Alabama that were materially lower than the interstate mileage scales of the carriers to which he refers, which serve to reduce the general level of the going interstate rates, and the important fact that the Alabama rates carried a substantially higher minimum carload weight than the [fol. 1027] interstate rates. This fact, of itself, is sufficient to nullify any advantage that the Alabama shipper might have in the rates in some instances over interstate shippers. Then, again, the finding which he recommends grows out of conditions surrounding the existing interstate rate structure which he condemns in another part of the report. We respectfully submit that unlawful discrimination cannot be found to exist between existing intrastate rates and some future interstate rate structure. The Alabama rates under the law cannot be condemned upon the record in these proceedings because they may not harmonize with some future revision.

The examiner must have been influenced in his recommendation that the Alabama intrastate rates constitute unjust discrimination against interstate commerce by the thought that "When there is such a preponderance of intrastate traffic as here obtains, the conclusion is inevitable that the application of rates thereon anything less than reasonable must bring about, in some degree at least, the un-

just discrimination against interstate commerce declared by the act to be unlawful." (Sheet 47.) The reasonableness vel non of intrastate rates is not a matter for the Commission to decide in discrimination cases (American Express Company vs. Caldwell, 244 U. S. 417). If this be a fact, then it follows that the Commission cannot rest its findings of discrimination upon the reasonableness or unreasonableness of the intrastate rates.

The examiner recommends that an order for the removal of the alleged discrimination not be issued by the Commission pending action by the Alabama Public Service Commission. This is in harmony with the practice of the Commission in recent years in these matters, but we think it should go further and withhold any findings in the premises, because we do not believe a finding of this character is justified upon the record. What may be justified in the future when the interstate rates are revised depends upon facts and circumstances then existing and upon another record.

[fol. 1028] There is one matter we have reserved for comment, on invitation of the examiner, in our conclusion. At the bottom of sheet 39 mention is made of the fact that some consideration was given to the construction of joint-line rates by the addition of certain mileage arbitraries. We have given thought to this matter, but are convinced that it would lead to complications and possibly to unnecessary controversies and disagreements. We much prefer the method that the examiner recommends which is in harmony with the practice of the carriers and the Commission in the revision of rates on other commodities up to this time.

Dated at Montgomery, Alabama, March 20, 1926.

Respectfully submitted.

Hugh White, Attorney. J. H. Alldredge, Chief Examiner for the Alabama Public Service Commission.

[fol. 1029] We agree that the within and attached narrative is a true and correct transcript in narrative form of all of the oral testimony introduced at the hearing before the Commission as the same is contained in the offi-

cial typewritten transcript in the proceedings referred to.

This 18th day of August, 1930.

Charlie C. McCall, Hugh White, J. W. Brassen, Edgar Watkins, Solicitors for Plaintiffs. Elmer B. Collins, Special Assistant to the Attorney General; Daniel W. Knowlton, E. M. Reidy, Solicitors for Interstate Commerce Commission. W. N. McGehee, Frank D. Gwashing, Solicitors for Defendant Carriers.

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IN UNITED STATES DISTRICT COURT

ORDER APPROVING NARRATIVE STATEMENT OF TESTIMONY

The foregoing narrative statement is hereby approved and ordered filed, same being the narrative statement referred to in the stipulation re transcript of record herewith filed by counsel.

This 21st day of August, 1930.

Wayne G. Borah, U. S. Judge, sitting under order of designation, in the Northern District of Alabama.

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[fol. 1030] Clerk's certificate to foregoing transcript omitted in printing.

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[fol. 1031] IN UNITED STATES DISTRICT COURT

[Title omitted]

ORDER EXTENDING TIME—Filed August 22, 1930

For satisfactory reasons appearing to the Court, the time for filing the record in this case in the Supreme Court of the United States, pursuant to the appeal sued out, is extended until the 22nd day of October, 1930.

This 21st day of August, 1930.

Wayne G. Borah, U. S. Judge, sitting under order of designation, in the Northern District of Alabama.

A true copy.
W. S. Lovell, Clerk U. S. District Court, Northern District of Alabama. (Seal U. S. District Court, Northern District of Alabama.)

[fol. 1032] [File endorsement omitted.]

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[fol. 1033] IN SUPREME COURT OF THE UNITED STATES

STATEMENT OF POINTS TO BE RELIED UPON AND DESIGNATION OF PARTS OF RECORD TO BE PRINTED—Filed Oct. 15, 1930

Come now the appellants in the above entitled cause and state that the points on which they intend to rely in this Court in this case are as follows:

Points on Which Appellants Intend to Rely

The order of the Interstate Commerce Commission attacked in this proceeding should have been enjoined and annulled for each and all of the reasons set out in the assignments of error (transcript 242), from which assignments arise the points on which appellants intend to rely and which points are comprehended in the following summary:

Point 1. The District Court, three judges presiding, of the Northern District of Alabama, Southern Division, at Birmingham, erred in not enjoining and annulling the order of the Interstate Commerce Commission for that said order was beyond the power which the Interstate Commerce Commission could constitutionally exercise, such order regulated intrastate commerce not shown to affect or burden commerce among the States.

[fol. 1034] Point 2. The court erred in not enjoining and annulling the order for that such order was entered in violation of the Due Process Clause of the Fifth Amendment to the Constitution of the United States in particular as follows:

(a) There was no issue or testimony before said Commission or before said court relating to the relationship

of the rates on transportation wholly within the State of Alabama and the rates prescribed by said order to take the place of such intrastate rates.

(b) There was no issue raised justifying and no evidence to support the rates established by said order and made applicable thereby both to single and to joint line hauls wholly within the State of Alabama, both the issues and the evidence referred exclusively to rates for single lines lower than and different from the rates over two or more lines.

Point 3. The court erred in not enjoining and annulling said order as the Interstate Commerce Commission in entering the order acted arbitrarily and unjustly, and prescribed rates for the transportation of property wholly within the State of Alabama contrary to and without any substantial evidence in support of its action in particulars as follows:

(a) The issue raised and heard was whether or not the rates on the transportation of property wholly within the State of Alabama in their relation to the rates on interstate transportation violated sections 3 and 13 of the Interstate Commerce Act as amended by Transportation Act 1920, and as to many of the rates on transportation wholly within the State of Alabama there was no evidence of any such violation.

(b) There was no issue raised by the pleadings of the parties or order of the Interstate Commerce Commission between the rates on the transportation of property wholly within the State of Alabama and the rates found reason-[fol. 1035] able on interstate transportation and ordered applied intrastate in Alabama.

(c) There was no substantial evidence to support a finding that all the rates on transportation wholly within the State of Alabama were in competition with or a burden on interstate transportation.

(d) The order applicable to transportation wholly within the State of Alabama applies to all intrastate rates although some intrastate rates were higher than the prescribed rates interstate.

(e) There was no evidence to support any order fixing intrastate rates on short lines of railway wholly within the State of Alabama.

Point 4. The order of said Commission was arbitrary and unlawful because in so far as it applies on interstate transportation it prescribes only maximum rates, while as applied on intrastate transportation in the State of Alabama it prescribes rates that are both maximum and minimum rates.

## Parts of the Record Necessary to be Printed

No issue is made in this case with reference to the validity of the order in so far as it prescribes rates applicable to interstate transportation nor in so far as it prescribes rates intrastate in states other than Alabama, the sole issue relating to the order in so far only as it affects transportation within the State of Alabama. Appellants, however, recognize that this being a petition to set aside an order of the Interstate Commerce Commission, and because appellees when this cause was here on a prior appeal required that the whole record be printed, specify as necessary to a full understanding of the case all the record sent up by the Clerk of the court below, omitting titles as is usual, the bond, and the original exhibits covered by the stipulation (R. 244).

Respectfully submitted,

[fol. 1036] Edgar Watkins, Edgar Watkins, Mac Asbill, Mac Asbill, Atlanta Trust Co. Building, Atlanta, Georgia; Charlie C. McCall, Charlie C. McCall, J. W. Brassell, J. W. Brassell, and Hugh White, Hugh White, Montgomery, Alabama, Attorneys for Appellants.

[fols. 1037 & 1038] State of Georgia,
County of Fulton:

Personally appeared before the undersigned authority Edgar Watkins, who on oath says that he is attorney for the appellants, the State of Alabama and Alabama Public Service Commission, in that certain case pending in the Supreme Court of the United States returnable to the October Term, 1930, entitled State of Alabama, et al. vs.

United States, et al.; that complying with paragraph 9 of Rule 13 affiant has designated in said cause the points on which appellants rely and the part of the record necessary to be printed, the original of which designation is forwarded to the Clerk of the Supreme Court of the United States herewith: that a copy of said original has this day been sent by registered mail, under a properly stamped envelope, to all the attorneys of record for the appellees, to-wit:

Mr. Elmer B. Collins, Attorney for the United States, Washington, D. C.;

Mr. E. M. Reidy, Attorney for the Interstate Commerce Commission, Washington, D. C.;

Mr. W. N. McGehee, Attorney for the Southern Railway Company and other railway appellees, Washington, D. C.;

Mr. Frank W. Gwathmey, Attorney for Atlantic Coast Line Railway Company, and other railway appellees, Washington, D. C.

Edgar Watkins.

Sworn to and subscribed before me this 13 day of October, 1930. Alice C. Boykin, Notary Public, state of Georgia at Large, Atlanta, Georgia. Seal of Alice C. Boykin, Notary Public, Georgia, State at Large, Atlanta, Georgia.

[fol. 1039] [File endorsement omitted.]

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Endorsed on cover: File No. 35,435. N. Alabama D. C. U. S. Term No. 513. State of Alabama and Alabama Public Service Commission, appellants, vs. United States of America, Interstate Commerce Commission, Atlantic Coast Line Railroad Company, et al. Filed October 15, 1930. File No. 35,435.

FILE COPY

Office Supreme Court,
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CLERK

# Supreme Court of the United States

OCTOBER TERM, 1930

No. 518

THE STATE OF ALABAMA AND ALABAMA PUBLIC SERVICE COMMISSION, Appellants,

VS

THE UNITED STATES OF AMERICA, ATLANTIC COAST LINE RAILROAD CO., SEABOARD AIR LINE RAILWAY COMPANY,

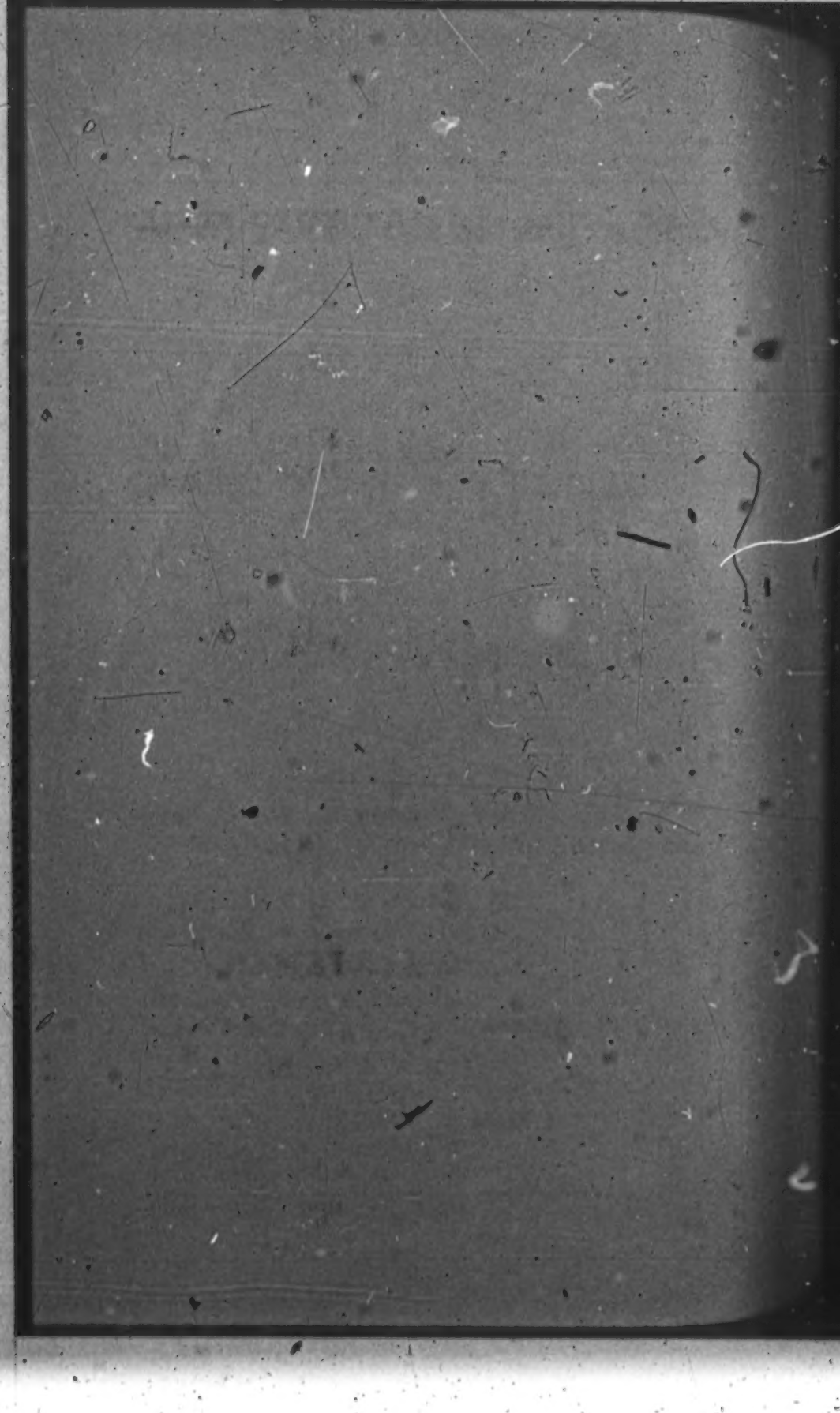
ET. AL.

Appeal from the District Court of the United States for the Northern District of Alabama.

CHARLIE C. McCALL,
Attorney General of Alabama.

J. W. BRASSELL,
Assistant Attorney General.
Assigned to: Alabama Public Service Commission.

EDGAR WATKINS,
MAC ASBILL,
HUGH WHITE,
Counsel for Appellants.



SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1930

No. 513

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THE STATE OF ALABAMA AND ALABAMA PUBLIC SERVICE COMMISSION, Appellants,

THE UNITED STATES OF AMERICA, ATLANTIC COAST LINE RAILROAD CO., SEABOARD AIR LINE RAILWAY COMPANY,

ET. AL.

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Appeal from the District Court of the United States for the Northern District of Alabama.

# RULE TWELVE STATEMENT

Come now the State of Alabama and Alabama Public Service Commission, appellants in the above styled cause, and, complying with amended Rule 12 of the Court, and respectfully show:

A. This Court has jurisdiction of this appeal under Section 47, Title 28, U. S. Code, and under Section 345,

Title 28 of the same Code, being Judicial Code Section 238 as amended.

B. The order appealed from in this cause was entered by a statutory court composed of three judges on June 24, 1930, (R. 239). This case was here before under the same style, 279 U. S. 229.

C. The suit in which the judgment was rendered, from which an appeal was taken, was brought to set aside orders of the Interstate Commerce Commission and to enjoin the railroad defendants from seeking to file and make effective tariffs in accordance with such orders. The United States was made a party defendant as were the railroads interested (R. 1 and 2). The complaint sets out in full reasons why appellants claim that they were entitled to the injunction prayed (R. 1 to 18, inclusive). The United States answered (R. 27), and the Interstate Commerce Commission intervened as a defendant (R. 147).

Three judges, one circuit judge and two district judges, heard the case and writing an opinion (R. 240 seq) dismissed the bill (R. 239).

In accordance with Section 47 of Title 28, U. S. Code, and within thirty days (R. 241), an appeal was taken direct to this Court from such order denying, after notice and hearing, the relief prayed. An assignment of errors was filed (R 242).

D. This Court has several times sustained jurisdic-

tion in similar cases. Typical of these are Louisville & Nashville R. Company v. United States, 238 U. S. 1; Railroad Commission of Wisconsin v. Chicago, B. & O. R. Company, 257 U. S. 563; Akron, C. & Y. R. Co. v. United States, 261 U. S. 184, 189; Virginian R. Co. v. United States, 272 U. S. 658; State of Alabama v. United States, 279 U. S. 229.

Respectfully submitted,

CHARLIE C. McCALL,
Attorney General of Alabama.

J. W. BRASSELL,
Assistant Attorney General.
Assigned to: Alabama Public Service Commission.

EDGAR WATKINS,

MAC ASBILL,

HUGH WHITE,
Counsel for Appellants.